Agenda
Member Representatives Committee

August 4, 2009 | 12–3:30 p.m.
The Delta Hotel
350 St. Mary Avenue
Winnipeg, Manitoba
204-942-0551

CLOSED SESSION (12-1:00 p.m.)

MRC — Election of Board Members
(a separate agenda will be provided to MRC members)

OPEN SESSION (1-3:30 p.m.)

Introductions and Chairman's Remarks

Antitrust Compliance Guidelines

Consent Agenda — Approve

*1. **Minutes**
- May 5, 2009 Meeting
- June 29, 2009 Conference Call
- July 13, 2009 Conference Call

*2. **Future Meetings**

Regular Agenda

*3. **Amendment to NERC Bylaws Regarding Additional Independent Trustee**

*4. **Status of Efforts in Canada**

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Princeton, NJ 08540
609.452.8060 | www.nerc.com

*5. **2009 Long-Term Reliability Assessment**
  a. **Key Findings**
  b. **Emerging and Standing Issues**
  c. **Reliability Performance Metrics**
  d. **2009 Scenario Assessment Preview**

*6. **Critical Infrastructure Protection Program Activities**

*7. **MRC Officer Elections and MRC Nominations**

*8. **Update on CEO Search**

*9. **Event Analysis and Information Exchange**

Information Only — No Discussion

*10. **Transmission Availability Data System (TADS)**

*11. **Ad Hoc Group for Generator Requirements at the Transmission Interface**

*12. **Update on Regulatory Matters**

*13. **Training and Education**

* Background material included

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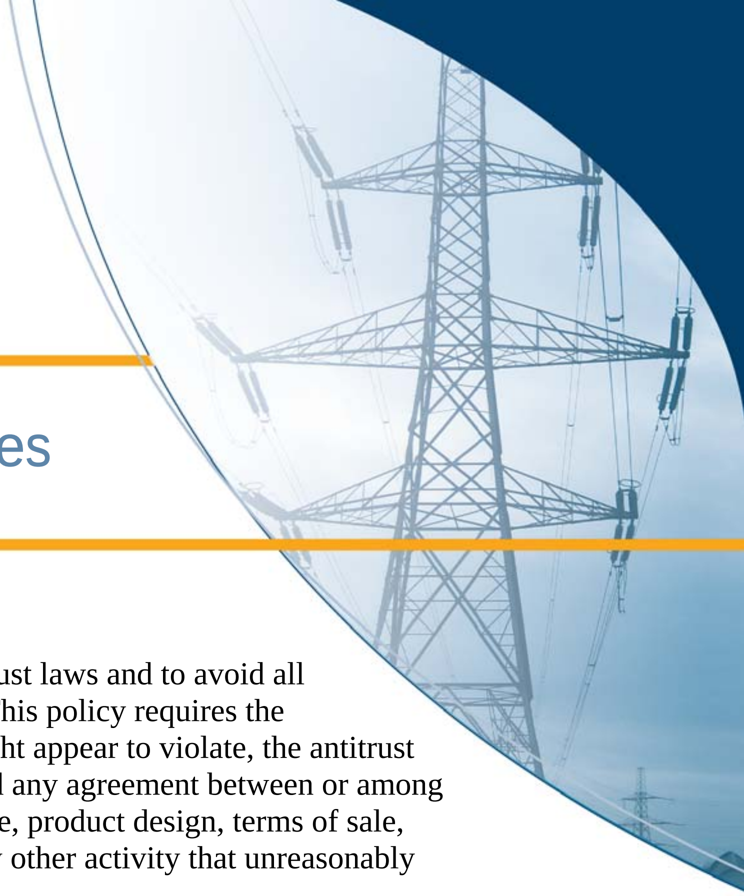

Antitrust Compliance Guidelines

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.

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Draft Minutes
Member Representatives Committee

May 5, 2009 | 9:45–10:30 a.m. | 1–3 p.m.
The Westin Arlington Gateway
801 Glebe Road
Arlington, VA
703-717-6200

Member Representatives Committee Chair Steven Naumann called to order a duly noticed meeting of the North American Electric Reliability Corporation Member Representatives Committee on May 5, 2009 at 9:45 a.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. No phone-ins were prearranged.

NERC Antitrust Compliance Guidelines

David Cook, vice president and general counsel, called attention to the NERC Antitrust Compliance Guidelines distributed with the agenda.

Minutes

The Member Representatives Committee approved the draft minutes of the February 9, 2009 meeting and April 6, 2009 conference call meeting (**Exhibits D and E**.)

Future Meetings

The Member Representatives Committee approved May 11, 2010 in Washington, D.C. as a future meeting date and location.

Introductions and Chairman's Remarks

Chairman Steven Naumann welcomed and introduced new committee member Lawrence Nordell, Montana Consumer Counsel, representing the small end-use customer segment. He also announced the following proxies: William Gallagher for Terry Bundy (transmission dependent utilities); Tim Gallagher for James Keller (Regional Entity – Voting); Sarah Rogers for John Giddens (Regional Entity – Non Voting); and Ed Schwerdt for Dave Goulding (Regional Entity – Non Voting.)

2009 Summer Reliability Assessment

Mark Lauby, NERC Director of Reliability Assessment and Performance Analysis, presented the highlights of the draft 2009 Summer Reliability Assessment (**Exhibit F**.)

2009 Long-Term Reliability Assessment Emerging Issues

Mark Lauby presented the emerging issues being developed for inclusion in the 2009 Long-Term Reliability Assessment (**Exhibit G**.) MRC comments on the emerging issues should be sent to Mark Lauby at mark.lauby@nerc.net. Paul Murphy inquired as to whether NERC has requested information on the reliability impacts of wind generation during low load levels. Mr. Lauby explained that this issue was addressed in NERC's *Accommodating High Levels of Variable Generation* report published in April 2009.

Process for Election of CEO-Level Executives to the ESSG

Chairman Naumann reminded the committee that NERC will be soliciting nominations for two CEO positions for two-year terms on the Electricity Sector Steering Group (ESSG) for the committee to elect on its conference call scheduled for June 29, 2009 at 11 a.m. EDT. He also announced that he had named Tim Taylor, President & CEO of Public Service Company of Colorado, to fill the unexpired term of Paul Bonavia until the nomination and election process takes place.

Board of Trustees Nominating Committee Process

Chairman Naumann reported that in response to a solicitation for volunteers to serve on the Board Nominating Committee, that four MRC members had expressed interest. He added that the following list, in priority order, will be submitted to the Board Nominating Committee for their consideration:

Steven Naumann (MRC chairman)
Ed Tymofichuk (MRC vice chairman)
John A. Anderson (ELCON, representing large end-use customers)
James Keller (Wisconsin Electric Power, representing Regional Entities — RFC)
William Gallagher (Transmission Access Policy Study Group, representing transmission dependent utilities)
Dale Landgren (American Transmission Company, LLC, representing Regional Entities —— MRO)

Chairman Naumann also indicated that he planned to hold a closed session of the MRC at its August 4 meeting to discuss the election of board members.

Update on Regulatory Matters

David Cook referenced the list of FERC orders, NERC filings, and prospective NERC filings included in the agenda background. He noted that efforts were underway to finalize agreements with the Quebec Regie and NPCC within the next week. He also indicated that FERC had issued on April 23, 2009, a deficiency notice regarding NERC's July 25, 2008 compliance filing on the reliability standards applicable to New Harquahala Generating Company, LLC. NERC has thirty days to respond to this notice.

Proposed Amendment to NERC Rules of Procedure Section 500 and Appendix 5

David Cook reported that a proposed amendment has been worked out with the NERC Compliance and Certification Committee, and will be posted for the requisite 45-day comment period before being brought to the board for approval for filing with FERC.

Operating Reliability Data Agreement

David Cook explained the need to amend the Operating Reliability Data Agreement to permit disclosure to FERC of the necessary subset of operating reliability data for only the U.S. portion of the bulk power system. He noted that the proposed amendments define an "Eligible Governmental Authority" as a U.S. Federal agency or department that (i) has jurisdiction over a portion of the bulk power system, (ii) requests access to the Situational Awareness Information, and (iii) agrees to treat that information as confidential or critical energy infrastructure information. Mr. Cook also noted the development of a special agreement with NPCC to address issues unique to their situation.

Meeting Recess and Reconvene

Chairman Naumann recessed the meeting at 10:30 a.m. and reconvened the meeting at 1 p.m.

Priorities and Emphasis for 2009

Chairman Naumann introduced and led a discussion on Priorities and Emphasis for 2009 with emphasis on improvement of reliability through feedback (**Exhibit H**.) Under this approach, NERC would use what has been learned from event analyses and compliance monitoring, to provide feedback to standards and other programs. In addition, feedback would be provided to industry in the form of Alerts on what are the problems with compliance with a particular standard.

Chairman Naumann concluded his remarks by recommending a pilot project be launched using the results of compliance with Reliability Standard PRC-005, "Transmission and Generation Protection System Maintenance and Testing." The project would identify in detail the causes of violations of the requirements of this standard, and provide that information as feedback to the industry for use in improving reliability. If successful, a second standard to consider for this approach could be FAC-008, "Facilities Rating Methodology."

Following discussion by the committee in which this approach was endorsed, it was agreed that the chairman of the MRC and the chairman of the board compliance committee would develop an action plan along the lines discussed. NERC CEO Richard Sergel, offered that the staff would develop a draft action plan that could be implemented with existing resources, and bring it to the two chairs for consideration.

Three-Year Performance Assessment

David Cook presented an outline of the April 27, 2009 draft of the Assessment, and a timeline for completing work on the document for filing with the FERC by July 20, 2009. He noted that an open workshop will be held on May 19 in Denver, Colorado (at the airport) to conduct a structured discussion of the draft Assessment, and that final written comments from stakeholders were welcome through May 29.

Members of the committee offered comments on the draft Assessment. A summary of the highlights of those comments, as reported to the board on May 6 by NERC Chairman John Q. Anderson, is attached as **Exhibit I** respectfully.

Following discussion, Chairman Naumann requested that committee members let NERC know if there would be any objections to posting the raw survey results on the NERC website.

Cyber Risk Preparedness Assessment

Dave Nevius, senior vice president, gave a brief description of the Cyber Risk Preparedness Assessment as described in more detail in the agenda background. He reported that NERC has formed a Project Advisory group that is actively participating with NERC staff in the project, and added that the ESSG was briefed on the project scope and status on May 1.

To date, a project charter has been developed and approved; a "socialization" document developed and provided in the agenda background; a project multi-party confidentiality agreement developed and undergoing legal review; a preliminary list of potential candidates developed; preliminary cyber threat scenarios under development; and a preliminary communications plan under development.

For questions or any expression of interest in participating in the project, contact Tim Roxey, manager of critical infrastructure protection at tim.roxey@nerc.net or 410-586-0026.

Cyber Security Order 706 Standard Drafting Team — Project 2008-06

The agenda background material provides the current status of this project. The chair of the standard drafting team was not available to present the status report on this project due to illness.

FERC Order 706-B Process and Timeline

Gerry Adamski, vice president and director of standards, reported on the current plan for finalizing a new implementation plan, including the opportunity for stakeholder input. He indicated that NERC has 180 days from March 25, 2009 to file the plan and timeline. An open town hall stakeholder meeting is scheduled on June 11 in Toronto following the NERC committee meetings to gather input. The current proposal is to use the recently balloted "Newly Identified Critical Asset Implementation Plan" as a starting point, and post this proposed plan for broad industry comment for 30 days. The implementation clock starts based on FERC approval of the filed timeline document.

Following discussion by committee members, Chairman Naumann asked Scott Henry, chairman of the Standards Committee, to work with Gerry Adamski and Mike Assante to develop a plan for the June 11 meeting in Toronto.

Comments by Observers

EPSA (Jack Cashin) — written comments submitted in advance of the meeting.

EEI (Jim Fama) — Appreciate arranging for May 19 workshop to discuss the Three-Year Performance Assessment. Urge NERC to move forward with the short-form settlement agreement discussed in the board compliance committee meeting, but to broaden the eligibility requirements. Cyber security issue is getting a lot of attention; e.g., Wall Street Journal article; letter to FERC from Congressman Markey; proposed legislation. This represents a fundamental change in how government approaches the industry. Suggest tapping into the resources of the ESSG.

CEA (Pierre Guimond) —– Support and work with NERC to find solutions. Not always evident that there is a benefit to Canada from some initiatives. Willing to help NERC understand views of CEA and industry in Canada.

NAESB (Rae McQuade) —– Joint NERC-NAESB process is working very well.

NRECA (David Mohre) — NERC needs to maintain better balance between attention to FERC and attention to the industry. Comments reveal that balance has not yet been achieved. Also important are materiality to reliability of the NERC reliability standards and the priorities of NERC's mission.

APPA (Allen Mosher) — Support comments of others. A policy storm will be coming from Congress over next 18 months on climate change, renewable portfolio standards, and smart grid.

FERC (Susan Court) — Look forward to receiving the Three-Year Assessment and its recommendations. Admire the dedication of all those involved.

U.S. DOE (Pat Hoffman) —– Appreciate the opportunity to participate in meeting.

August Meeting in Winnipeg

Ed Tymofichuk, vice chairman, announced that Manitoba Hydro has arranged for two technical tours associated with the August MRC meeting in Winnipeg. August 3 — Light reception and tour of the new LEEDS design Manitoba Hydro Head Office two blocks from the hotel beginning at 7pm. August 6 (all day event) Technical tour of Nelson River hydro generating plants and HVDC converter stations. Details will be out on NERC list server in early June. Both events will accommodate limited numbers of people on a first to register basis.

Adjournment

There being no further business, Chairman Naumann adjourned the meeting at 3:00 p.m.

Submitted by,

David R. Nevius
Secretary

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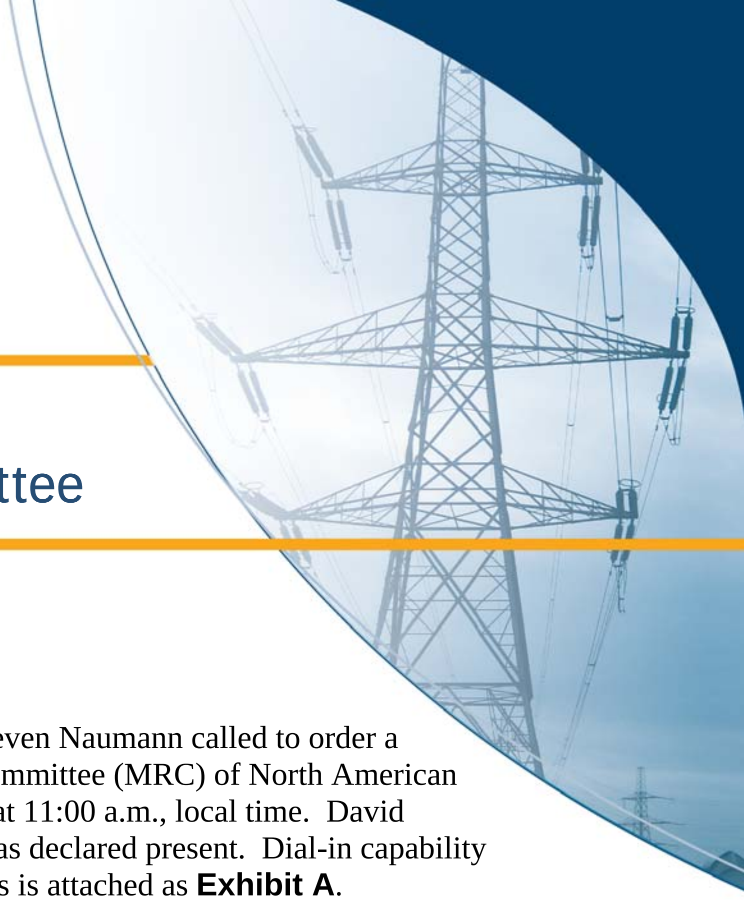

Conference Call Draft Minutes
Member Representatives Committee

June 29, 2009
11 a.m. – noon

Member Representatives Committee Chairman Steven Naumann called to order a conference call of the Member Representatives Committee (MRC) of North American Electric Reliability Corporation on June 29, 2009 at 11:00 a.m., local time. David Nevius, Secretary, called the roll, and a quorum was declared present. Dial-in capability was provided for the meeting. The list of attendees is attached as **Exhibit A**.

NERC Antitrust Compliance Guidelines
David Nevius, NERC Senior Vice President, directed the participants' attention to the NERC Antitrust Compliance Guidelines.

Election of Members
Chairman Naumann informed the committee that the purpose of the conference call was to approve the election of open positions of the Electricity Sector Steering Group (ESSG.) The three nominations received were Terry Boston, Gary Fulks, and Tim Taylor. On motion by Ed Tymofichuk, Vice Chairman, with a second by Julius Pataky the committee elected Tim Taylor and Gary Fulks for two-year terms.

Future Meetings
Mr. Nevius reminded the committee of the next conference call that will take place on July 13, 2009 at 11 a.m. EDT. Chairman Naumann informed the committee that Board of Trustees members Janice Case and Fred Gorbet will be reporting at the August 4, 2009 MRC Meeting in Winnipeg, to discuss the process of the upcoming CEO search.

Adjournment
There being no further business, Chairman Naumann adjourned the conference call at 11:30 a.m. EDT.

Submitted by,

David Nevius
Secretary

NERC

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Conference Call Draft Minutes
Member Representatives Committee

July 13, 2009 | 11 a.m. – noon

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 July 13, 2009 at 11 a.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 requiring a quorum.

NERC Antitrust Compliance Guidelines
David Cook, NERC Vice President and General Counsel, directed the participants' attention to the NERC Antitrust Compliance Guidelines.

Review of MRC August 2, 2009 Draft Agenda
In reviewing the MRC draft agenda (**Exhibit D**), Chairman Naumann called the committee's attention to the item dealing with a proposed amendment to the NERC Bylaws to allow an increase in the size of the NERC Board of Trustees by one member. David Cook noted that consideration of a proposed amendment for this purpose was not definite at this time and will be discussed at the Nominating Committee's conference call on Tuesday, July 14 at 3 p.m. EDT. If the Nominating Committee considers it in order, it will make a recommendation to the MRC and the NERC Board of Trustees on the Bylaws amendment, which will then be included in the agenda packages for the August 4 meeting of the MRC and August 5 meeting of the Board. Chairman Naumann reminded the MRC members that if this item is on the MRC agenda for action at its August 4 meeting that a quorum will be required to take action. He urged members to make every effort to attend the meeting in person or to appoint a proxy.

Board of Trustees Agenda
Chairman Naumann gave an overview of the preliminary agenda for the August 5, 2009 Board of Trustees meeting (**Exhibit E)**. The MRC discussed the agenda and NERC staff provided input on the material that would be covered as part of each item.

2010 Business Plan and Budget
Chairman Naumann reviewed the general plan on how the 2010 Business Plan and Budget will be discussed. David Nevius, NERC senior vice president and MRC secretary, stated this will be discussed on the Finance and Audit Committee's (FAC) conference call scheduled for Friday, June 17. The FAC will discuss comments received and review the 706 B Allocations and how they are proposed to be handled. Based on the conference call, the FAC will make specific recommendations to the NERC Board to

approve the business plan and budget at its August 5 meeting. The business plan and budget will be filed on August 24. David Cook stated in addition to the discussions on July 17, there will also be a discussion of the business plan and budget at the open FAC meeting in the morning of August 4 in Winnipeg.

2009 LTRA
Mr. Nevius reported that the Planning Committee (PC) and the Reliability Metrics Working Group (RMWG) have been working on metrics regarding Adequate Level of Reliability for inclusion in the 2009 Long-Term Reliability Assessment (LTRA) report. Mark Lauby, NERC director of reliability assessments and performance analysis, will brief the MRC on where those discussions stand as well as provide a preview of the issues to be included in the 2009 LTRA. Mr. Lauby will also report at the Board Compliance Committee's meeting on the afternoon of August 4 on efforts to measure reliability based on NERC reliability standards violations. A copy of Mr. Lauby's presentation will be provided with the agenda to give MRC members a chance to review it in advance..

CIP Issues
Mr. Nevius reported that Jeri Domingo Brewer, chair of the CIP Standard Drafting Team, will give a status report on the team's efforts to update the CIP standards. Michael Assante, NERC chief security officer, will discuss NERC's other CIP initiatives, including: the Cyber Risk Preparedness Assessment activity; the Secure Grid 2009 War Game Exercise, co-sponsored by DHS, DOE and DoD, which he attended last week; and the NERC Secure Alert Notification System (NSANS) and NERC's plans for its deployment. NSANS is the new system to disseminate Advisories, Recommendations and Essential Action Alerts to the industry. David Cook reported that Mr. Assante has been invited to testify before a subcommittee of the House Homeland Security Committee on July 21, 2009 and may also be able to report on that at the MRC meeting.

Feedback from Compliance and Event Analysis Programs
David Nevius indicated that this issue will be discussed in part at the Board Compliance Committee meeting when Mr. Lauby presents on Measuring Reliability with NERC Standards Violations. Bob Cummings, NERC director of event analysis and information exchange, will report at the MRC meeting on events that have occurred, observed trends, and feedback provided to the industry through Alerts as lessons learned.

Terry Blackwell requested the MRC also devote some time at its meeting to a continuation of previous discussions with regard to a review and clarification of existing NERC reliability standards. Depending on the time available, discussion of this topic may need to be deferred to the November 2009 MRC meeting in Atlanta.

Ed Tymofichuk, MRC vice chairman, suggested continued dialog on feedback regarding violations of reliability standards PRC-005. Mr. Naumann indicated that discussion of violations of PRC-005 as well as CIP-004 will take place in the Board Compliance Committee meeting in conjunction with Mark Lauby's presentation.

MRC Officer Election

Chairman Naumann stated there will be brief item on the upcoming elections for MRC officers and the procedure for MRC nominations for those members whose terms expire in February 2010. In addition, he suggested a short discussion on the role of the Electricity Sector Steering Group with relation to governmental entities.

CEO Search

The MRC can expect a briefing on the NERC CEO search at its August 4 meeting by board members Janice Case and Fred Gorbet, co-chairs of the NERC CEO Search Committee.

706B Allocations

Chairman Naumann reported this item is still under development. David Nevius noted that NERC, FERC and NRC representatives would be meeting July 14 to continue discussions on 706 B implementation.

Rules of Procedure Appendix 5, Section 500

Chairman Naumann noted that there will be a discussion on proposed revisions to the Rules of Procedure, Appendix 5, Section 500, which will be an action item on the Board agenda on August 5.

Closed Meeting of the MRC

Chairman Naumann reminded the committee there will be a closed meeting of the MRC at 12 noon on August 4, prior to the open meeting. The meeting will be limited to a discussion of the election of the NERC Board of Trustees members whose terms are expiring in 2010. It will not address the CEO search or the board expansion. This meeting will be open to MRC Members and authorized Proxies only.

Meeting Adjourned

There being no further business, the call was terminated at 11:53 a.m. EDT.

Submitted by,

David R. Nevius

Committee Secretary

Future Meetings

MRC Action Required

Approve August 4 – 5, 2010 (W–Th) in Toronto as a future meeting date and location.

Information

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

- November 4 – 5, 2009 — Atlanta, Georgia (W–Th)
- February 15 – 16, 2010 — Phoenix, Arizona (M–Tue)
- May 11 – 12, 2010 — Washington, DC (Tue–W)

Amendment to NERC Bylaws Regarding Additional Independent Trustee

MRC Action Required

Approve amendment to the NERC bylaws to add the flexibility to increase the number of independent trustees from ten to eleven and to subsequently decrease that number back to ten.

Introduction

On the recommendation of the Board of Trustees Nominating Committee, Chairman Naumann has included on the agenda the Nominating Committee's recommendation that the NERC bylaws be amended to provide the flexibility to add one additional independent trustee to the NERC board. Amendments to the bylaws require the approval of both the Board of Trustees and the Member Representatives Committee. This item is also on the agenda for the August 5th Board meeting.

Background

The NERC independent trustees are experiencing a substantially increased workload, particularly those serving on the Board of Trustees Compliance Committee. The number of compliance violations is significantly higher than was anticipated, and the Board Compliance Committee is holding multiple meetings or conference calls each month to deal with the workload. An additional independent trustee would assist that committee in dealing with its workload. Over the next few years, the NERC Board of Trustees will also face substantial additional work in implementing the results of the three-year performance assessment and in dealing with the maturing compliance and enforcement program. An additional trustee will assist in that effort.

In addition, the last four of the original nine independent trustees will next year begin coming up against the 12-year term limit the board adopted a few years ago. NERC's chief executive officer has also announced his intention to resign. In this time of transition to a new CEO, adding an additional independent trustee would enable NERC to have the benefits of the fresh perspectives that a new trustee brings, while at the same time maintaining continuity on the board. Action now would have the additional benefit of having that new trustee gain experience before the four original trustees leave the board.

The attached draft amendment to the bylaws provides flexibility for the board to add an additional independent trustee this year and then revert to ten independent trustees when it is no longer in the interests of the corporation and its members to have the additional trustee. At the point where the board reverts to ten independent trustees, the amendment requires the board to eliminate a position for which the term is expiring at the next annual election. The reduction could not shorten the term of a sitting trustee. The amendment also creates a deadline for board action to make a change, so that the change can be properly reflected in the budget and the nominations cycle. On July 14, 2009, the Nominating Committee voted to recommend the change in the bylaws to the Board and the MRC. Once approved by the Board of Trustees and the Member Representatives Committee, the amendment must be approved by FERC before it can take effect.

NERC Bylaws – Amended Sections 1 and 2 and new Sections 1a and 1b of Article III

ARTICLE III
Board of Trustees

Section 1 — Board of Trustees — The business and affairs of the Corporation shall be managed by a Board of Trustees. The board shall consist of eleven members (the "trustees"), unless it is increased to twelve members pursuant to Section 1a of this Article III. ~~Ten(10)~~ All but one of the trustees shall be "independent" trustees nominated and elected in accordance with the requirements and procedures specified in Sections 2, 3, 4, ~~and~~ 5, and 6 of this Article III (the "independent trustees"). The remaining trustee shall be the person elected by the board, in accordance with Article VI, Section 1, of these Bylaws, to serve as president of the Corporation (the "management trustee"). Each trustee, including the management trustee, shall have one (1) vote on any matter brought before the board for a vote. All trustees are expected to serve the public interest and to represent the reliability concerns of the entire North American bulk power system.

Section 1a — Increase in number of trustees — The board shall have the authority, by resolution, to increase the number of trustees from eleven to twelve, of which eleven trustees shall be independent trustees, with such increase to be effective as of the date of an annual election of independent trustees pursuant to Section 6 of this Article III. In order for the board to exercise this authority, the resolution increasing the number of trustees from eleven to twelve must be adopted by the board no later than December 1 immediately preceding the date of the annual election of independent trustees at which the increase is to be effective, and shall state a determination by the board that the increase is in the best interests of the Corporation and its Members. If the board adopts a resolution increasing the number of trustees from eleven to twelve, the nominating committee appointed pursuant to Section 5 of this Article III shall nominate a candidate to stand for election to the newly-created independent trustee position at the next annual election of independent trustees, along with candidates for the positions of independent trustees whose terms are expiring as of such election. The newly-created independent trustee position shall be filled by election in accordance with Section 6 of this Article III. Upon election of a trustee to the newly-created independent trustee position, the board shall thereafter consist of twelve trustees, of whom eleven shall be independent trustees and one shall be the management trustee provided for in Section 1 of this Article III, unless the board decreases the number of trustees in accordance with Section 1b of this Article III.

Section 1b — Decrease in number of trustees — If the board has previously increased the number of trustees under Section 1a of this Section III, the board shall have the authority, by resolution, to decrease the number of trustees from twelve to eleven, of which ten trustees shall be independent trustees, with such decrease to be effective as of the date of an annual election of independent trustees pursuant to Section 6 of this Article III. The decrease in number of trustees shall be effected by eliminating one of the independent trustee positions whose term is expiring as of the date of such annual election of trustees, in which case no election shall be held to replace such trustee. In order for the board to exercise this authority, the resolution decreasing the number of trustees from twelve to eleven must be adopted by the board no later than September 1 immediately preceding the date of the annual election of independent trustees at which the decrease is to be effective; shall identify the independent trustee position expiring at the date of such annual election that shall be eliminated; and shall state a determination by the board that the decrease is in the best interests of the Corporation and its Members.

Section 2 — Composition of Board Based on Country Participation

a. The board shall consist of a number of trustees from the United States and from Canada. The number of trustees from Canada shall not be less than the percentage of the NEL of Canada to the total NEL of the United States and Canada, times eleven (or times twelve if the number of trustees has been increased to twelve pursuant to Section 1a of this Article III), rounded up to the nearest whole number. For purposes of this board composition requirement, the management trustee shall be counted as a trustee from Canada if he or she is a Canadian citizen.

b. When the Corporation receives recognition by appropriate regulatory authorities in Mexico as its electric reliability organization, the number of independent trustees will be increased by at least one, and the board composition requirement in subsection (a) will be expanded to include Mexico.

Status of Efforts in Canada

MRC Action Required

None

JURISDICTION	STATUS
Alberta	**Recognition:** The Minister of Energy recognized NERC as the electric reliability organization by Order dated December 28, 2007. NERC is discussing a draft MOU with the Alberta Electric System Operator (AESO.) **Standards:** The NERC and WECC reliability standards are to be effective in Alberta to the extent the AESO makes them effective under the Transmission Regulation. Under the Transmission Regulation, the AESO gives notice to the Alberta Energy Board of proposed standards, with a recommendation to approve or reject them. A number of standards have been adopted in Alberta, and the AESO's Alberta Reliability Standards Project Plan would see all standards reviewed by the end of 2010. **Enforcement:** The AESO is responsible to make rules respecting its practices for monitoring and compliance with reliability standards. The Market Surveillance Administrator (MSA) is responsible for investigations of possible infractions of reliability standards within the province. Following investigation, if the MSA believes there have been violations, it files charges with the Alberta Utilities Commission, which is the hearings body and makes determinations.
British Columbia	**Recognition:** Under the Utilities Commission Amendment Act of 2008, NERC and WECC were recognized as "standard making bodies." NERC has no MOU with BC. **Standards:** The Utilities Commission Amendment Act creates a mechanism for introducing mandatory reliability standards for British Columbia's bulk electricity system. On recommendation from the BC Transmission Corporation (BCTC,) the British Columbia Utilities Commission (BCUC) is empowered to determine whether the rules established by the North American Electricity Reliability Corporation and the Western Electricity Coordinating Council are in the public interest, and whether they should be adopted in British Columbia. In June 2009, the BCUC approved 103 NERC and WECC standards for effect in BC. A mechanism has been put in place for subject entities to come into compliance. **Enforcement:** Enforcement of rules adopted by the BCUC would be by the BCUC (which does not currently have the authority to make sanctions but must take action through the courts). The BCUC would also expect to make use of WECC procedures for compliance monitoring.
Manitoba	**Recognition:** In May 2008 NERC, MRO, and Manitoba Hydro signed an interim agreement by which NERC reliability standards are made legally enforceable against Manitoba Hydro. **Standards:** Under the existing regime, reliability standards are currently mandatory and enforceable as to Manitoba Hydro, but not others within the province. Manitoba has recently passed reliability legislation but the new regime will not come into effect until necessary regulations are developed. Under the new legislation, the Manitoba Utilities Board may confirm or remand reliability standards on

	application of an affected party. **Enforcement:** MRO monitors compliance with standards for Manitoba Hydro. By agreement with the province, compliance matters in dispute would be referred to the Manitoba Utilities Board. This authority for the Board is confirmed in the legislation.
New Brunswick	**Recognition:** NERC has MOUs with New Brunswick that detail the roles and responsibilities of the parties, including recognizing NERC as a "standards authority" under the New Brunswick *Electricity Act*. **Standards:** NERC reliability standards have in the past become mandatory in New Brunswick at the time they are approved by the NERC board, as part of the New Brunswick market rules. There is now a process for review of NERC approved standards by the New Brunswick System Operator, and a role for the Energy and Utilities Board (EUB) in possibly revoking or remanding standards. **Enforcement:** Under the MOU, NPCC would monitor compliance of the New Brunswick System Operator. NPCC would not have authority to make findings or impose sanctions, but could make recommendations to the EUB, which does have authority to make findings and impose sanctions. The reliability standards are enforced within New Brunswick for market participants by the New Brunswick System Operator as part of the market rules.
Nova Scotia	**Recognition:** NERC and the Nova Scotia Utilities and Review Board (NSUARB) signed an MOU in December 2006. NERC, NPCC, and Nova Scotia Power are developing a further MOU to specify roles and responsibilities. **Standards:** The NSUARB has the authority to adopt NERC reliability standards and make them mandatory within the province. The NSUARB also has the authority to adopt its own reliability standards. No standards have yet been made mandatory. **Enforcement:** The NSUARB retains the authority within the province to enforce reliability standards and to impose sanctions for non-compliance. The MOU contemplates that NERC and NPCC would make recommendations to the NSUARB, and the NSUARB would conduct hearings. The NERC and NPCC recommendations could be evidence at the hearings.
Ontario	**Recognition:** NERC and the Ontario Energy Board (OEB) signed an MOU in October 2006. On November 28, 2006, the Ontario Minister of Energy recognized NERC as the successor in Ontario to the North American Electric Reliability Council as the international electric reliability standards authority in accordance with the definition of "standards authority" found in the *Electricity Act, 1998* (Ontario). NERC, NPCC, and the Ontario IESO have signed an MOU to implement the NERC/OEB MOU. **Standards:** Under the *Electricity Act, 1998* (Ontario), NERC's reliability standards are made mandatory and enforceable on Ontario market participants as market rules. In general, the standards take effect when the OEB and the IESO receive notice that NERC has adopted them. Under a recent amendment to the *Electricity Act*, there is a process for adoption of standards involving the IESO and the OEB which has been given the authority to remand reliability standards in certain circumstances. **Enforcement:** Enforcement of reliability standards for entities within Ontario is carried out by the

	compliance division of the IESO. NERC and NPCC only monitor compliance with reliability standards applicable to the IESO itself. The ultimate authority for findings of non-compliance is the OEB.
Québec	**Recognition:** NERC and the Régie de l'énergie du Québec signed an MOU in November 2006 that recognizes NERC's role as the ERO. A subsequent agreement includes NPCC and mandates them as standards setting bodies, and also establishes that NERC and NPCC will provide compliance and enforcement services for a fee. Another MOU is being developed to implement the compliance arrangements. **Standards:** In December 2006, the *Act respecting the Régie de l'énergie* was amended to provide the Régie with authority to approve reliability standards that are proposed by a reliability coordinator designated by the Régie and adopted by a standards setting body, with which the Régie has an agreement. The reliability coordinator may propose variants to the NERC standards. The Régie has designated Trans Energie as the reliability coordinator. NERC, NPCC, and the Régie are negotiating an agreement to, among other things, provide a compliance monitoring and enforcement program for Québec. Once that agreement is in force, Trans Energie will submit reliability standards to the Régie for approval. **Enforcement:** The Régie retains final authority to find violations and impose sanctions. Under the draft agreement, NERC and NPCC will conduct the compliance monitoring program and make recommendations to the Régie for action. The Régie may impose a fine of up to $500,000 or other sanctions.
Saskatchewan	**Recognition:** Saskatchewan does not have a regulatory body over electricity matters. By provincial law, Saskatchewan Power has responsibility for reliability within the province. NERC, MRO, and Sask Power have concluded an MOU under which Sask Power would be subject to NERC and MRO reliability standards, with compliance issues to be reported to a non-operating group within Sask Power. **Standards:** Sask Power has authority to adopt reliability standards. In general, NERC reliability standards would be effective in Saskatchewan unless one was remanded in any jurisdiction or the Saskatchewan Authority (the non-operating group within Sask Power) determines not to adopt a particular standard. **Enforcement:** Enforcement would be the responsibility of the Saskatchewan Authority, which could make use of NERC and MRO for any of its compliance monitoring activities. There would not be financial penalties within Saskatchewan for violations of standards.
National Energy Board	**Recognition:** NERC and the National Energy Board (NEB) signed an MOU in September 2006 that recognizes NERC's role as the electric reliability organization and recognizes that, under the *National Energy Board Act*, the NEB does not have authority to approve NERC's bylaws and rules of procedure, and further recognizes that the NEB has jurisdiction only with respect to international power lines (IPLs). **Standards:** No reliability standards are currently mandatory for IPLs. In April 2008, the NEB

	announced an intention to make reliability standards mandatory for IPLs through a condition to the IPL license, or some other means, and is engaged in consultation on the best way to accomplish this. **Enforcement:** Because no standards are yet applicable, no enforcement program currently exists for violations of reliability standards with respect to IPLs. In discussion with the NEB, NERC has begun reporting compliance-related information regarding IPLs.

2009 Long-Term Reliability Assessment

MRC Action Required

None

Background

NERC will issue its 2009 *Long-Term Reliability Assessment* on or about October 26, 2009. This annual report provides NERC's independent assessment of projected North American bulk power system reliability for a ten year horizon (i.e. 2009-2018.) The goal of this assessment is to identify any adequacy and operating reliability considerations, along with historical reliability trends and risks from emerging/standing issues. A high level summary includes:

a. Key Findings (Mark Lauby)

1. **Sufficient Adequacy** — Demand growth across most Regions is projected to be lower than last year's forecast over the 10-year horizon, while capacity continues to grow. Demand-Side Management resources, including demand response and new energy efficiency programs, also increased. Operational reliability issues appear to be appropriately addressed, and forecast coal and natural gas supplies appear to be adequate.
2. **Generation Mix Changes —** Except for hydro, significant growth across all forms of renewable resources is projected. Capacity from natural gas generation is also forecasted to increase, while coal-fired generation capacity remains flat.
3. **Transmission Increases —** For the first time, industry provided increased granularity of their projected transmission plans. Transmission construction is forecasted to increase during the next 10 years, though the need to unlock location-constrained renewable energy may require more transmission than appears in the forecast.
4. **Cyber Security —** Cyber security remains a high profile Critical Infrastructure Protection issue. Metrics on historical trends indicate industry action is required.
5. **Frequency Response** — Frequency Response is a fundamental reliability component provided by a combination of generator governor and load response, which provides the MW contribution available to arrest frequency decline following a disturbance. Based on assessment of historical trends, this response is declining within the Eastern and Western Interconnections.

b. Emerging and Standing Issues (Mark Lauby)

The Planning Committee (PC) members ranked the likelihood and impact of fourteen Emerging and Standing Issues:[1]

Emerging Issues:

1. Economic Downturn — Demand Uncertainty
2. Economic Downturn — Demand Response and Energy Efficiency
3. Economic Downturn — Rapid Demand Growth after Flat Period
4. Economic Downturn — Infrastructure Impacts
5. Smart Grid and Advanced Metering Infrastructure (AMI)
6. Transmission Siting
7. Energy Storage
8. Workforce Issues
9. Cyber Security

Standing Issues (related to ongoing PC subgroup work):

1. Variable Generation — Transmission [Integration of Variable Generation Task Force]
2. Variable Generation — Ancillary Services [Integration of Variable Generation Task Force]
3. Variable Generation — Operational Issues [Integration of Variable Generation Task Force]
4. Greenhouse Gas Legislation [Reliability Impacts of Climate Change Initiatives Task Force]
5. Reactive Power — [Transmission Issues Subcommittee]

Results from this ranking activity drives future PC subgroup activities and defines potential scenario reliability assessments. Analysis of these issues will be incorporated into the *2009 Long-Term Reliability Assessment*.

c. Reliability Performance Metrics (Herb Schrayshuen, RMWG Chair)

The purpose of this section is to report performance trends in operating reliability and adequacy. Metrics under review include:

- Disturbance Event Trends
- Frequency Response
- Disturbance Control Standards Events
- Automatic Outages caused by Failed Protection System Equipment
- Capacity and Energy Emergency Alert (EEA) Events

High level Compliance feedback metrics are being considered as possible additional metrics.

[1] During the June 9-10, 2009 PC meeting, the Committee reviewed and approved 14 issues for risk assessment. Issues that are being addressed by a PC subgroup are labeled "standing issues."

d. 2009 Scenario Assessment Preview

NERC will issue its 2009 Scenario Assessment on or about November 11, 2009. The goal of the Scenario Reliability Assessment is to measure the relative sensitivity of the *2008 Long-Term Reliability Assessment* (reference case) to structural changes, thereby providing insights on the robustness of the reference case, and potential impacts to regional bulk power system reliability. Based on guidance from NERC's Planning Committee in 2008, regional entities, in concert with their stakeholders, assessed the impact of one of two potential scenarios:

- Accelerated integration of renewable resources from 2008 reference levels (15 percent energy increase from renewable resources; 5 percent can be from energy efficiency.)
- High penetration of nuclear generation.

Report Status

When compared to the *2008 reference case*, significant changes would be required to maintain bulk power system reliability. Preliminary findings include:

- Increased transmission construction and associated capacity would be required to reliably support variable resources and large nuclear plant integration.
- Higher reserve margins may be required to integrate renewables or large nuclear plants, the make-up of which is projected to be both in demand response and gas-fired resources.
- More regional coordination would be needed to support higher levels of interregional transactions (imports and exports.)

Critical Infrastructure Protection Program Activities

Action Required

None

Cyber Risk Preparedness Assessment (CRPA) Update

The project is on-track with the timeline and goals established in the project charter. The first Table Top Exercise (TTX), scheduled for the end of July, is planned to serve as the pilot and will include a volunteer entity. Specific status is as follows:

> **Phase 1 Design/Scenario —** Phase 1 is now 95 percent complete, with final data points to be confirmed by the first participant. Idaho National Laboratory (INL) and DHS ICS-CERT have been contacted and have committed any required support that may be requested prior or during the TTX. ICS-CERT was not asked to participate as an on-site observer, but is ready to support (remotely) should the scenario demand it. INL, on behalf of DoE, will participate as required. Scenario content is being reviewed by initial entity for relevance and accuracy.
>
> **Phase 2 Planning** — Phase 2 is 85 percent complete, with the bulk of the work required to shape the TTX schedule completed. Although no firm date has been set, key milestones have been met and a framework has been completed. Tasking is now being tied back to Phase 1 for scenario and use-case planning. Appropriate non- disclosure agreements and legal materials are beginning to be circulated to all CRPA team members.
>
> **Phase 3 Pilot TTX —** Phase 3 is 60 percent complete, with finalization and verification of TTX content to be done. This improvement is due to the materials provided by the first participant and the immediate decision to use a large amount of the material in planning. Some finalization of data has been completed. Phase 3 completion also requires progress reporting and analysis, which can only be done following the pilot TTX.
>
> **Phases 4 —** Phase 4 is 25 percent complete due to both the TTX presentation framework being done, as well as the initial selection of playbook formats**.**
>
> **Phases 5 and 6 —** No measurable work has been done for Phases 5 and 6, as they are contingent on delivering TTX to three or four other viable entities.

Project Description

Lead by NERC, this volunteer-based effort is part of the private sector's proactive efforts to raise the profile and priority of cyber security in the electric industry. The effort will look beyond NERC's current cyber security standards for practices, procedures, and technologies that contribute to cyber preparedness across the industry. It is not part of NERC's Compliance and Enforcement Program. Generalized, aggregated results will be used to inform standards development activities, alert the industry to potential areas of concern, and identify areas where research and development investment is needed. Specific results of the assessment will remain confidential for security reasons – a key condition of participation in the program.

Secure Grid '09 Joint Wargame Conducted

A joint DHS, DOE, DOD-sponsored wargame designed to examine security gaps in the electrical grid system and the capability of the public and private sectors to respond to such an event was held July 9 – 10, 2009. The event was hosted by the National Defense University of Fort McNair. The event was a non-public, FOUO-level strategic exercise to work through key issues in physical and cyber security, simulating a serious domestic attack on the electric grid. Several utilities participated along with NERC and representatives from industry associations. Two members of the NERC ESSG attended the executive session and brief out on July 10, 2009.

NERC Secure Alert System Deployment Plan

The NERC Secure Alert System (NSAS) gives the ES-ISAC/NERC the power to alert and notify registered entities of the bulk power system (BPS), and other utilities in the electricity sector, of vulnerabilities, threats, and/or abnormal events/conditions on the BPS or other significant events that may impact the sector. The system enables rapid alert creation and dissemination to the electric industry, as well as providing for quick acknowledgement and response from the industry via a secure Web browser portal.

Deployment Plan

Responsible	Task	Start	End
Certrec/NERC	Create Design Documentation	4/6/2009	4/20/2009
NERC	Finalize Requirements Specifications	5/4/2009	5/12/2009
Certrec	Begin Development of NERC Administrator Functions	5/12/2009	6/15/2009
NERC	Beta Testing - NERC Administrator Functions	6/15/2009	6/29/2009
Certrec	Development of Alert Processes	6/15/2009	7/20/2009
Certrec	Create Training Documentation and Presentations	6/15/2009	7/20/2009
NERC	Supply Industry User Data for Upload	6/29/2009	7/16/2009
NERC	Beta Testing - Alert Processes	7/20/2009	8/10/2009
Certrec/NERC	NERC Specific Training	7/27/2009	8/10/2009
Certrec	Bug Fixes/Design Changes to Alert Processes	8/3/2009	8/25/2009
NERC/Certrec	Provide Industry Training	8/18/2009	9/7/2009
NERC/Certrec	Conduct Industry Exercise	9/7/2009	9/18/2009
NERC	NERC Secure Alert System Goes Live		9/21/2009

General Functionality

The system supports tens of thousands of individual users. All entities appointed access to the NSAS will assign an Administrator of user accounts for that organization and its associated or affiliated entities. The Administrator is responsible for maintaining accurate contact information for all users within the organization and to assign Respondents and Functional Group Members for their organization/entities. Respondents can acknowledge and respond to alerts. Functional Group Members are able to receive alerts, but do not have permission to acknowledge or respond to an alert.

Alerts can be distributed to a targeted cross-section of the industry by registered function. An alert notification will be sent via email, and optionally via short message service (SMS), to inform users that an alert has been posted to the NSAS. Users are informed to log in to the system in order to read the posted alert and to acknowledge and respond as necessary.

In real-time, the system tracks all user acknowledgements and responses for each alert. Detailed reports can be generated using a variety of breakdowns of the data. Alerts can be easily and quickly re-sent to entities that have not responded to the original notification. A dashboard display will provide instant updates to the current status of open and recent alerts for administrators and managers.

Additional Capabilities

In addition to distributing alerts to the electric industry, the system provides a secure portal for subject matter experts (SMEs) to collaborate, discuss, and share information on potential vulnerabilities, threats, or abnormal events and conditions on the BPS. The secure site contains discussion groups, document libraries, chat, search, and action item assignment and tracking in a single Web-based location to engage industry expertise in the alert process. In addition, the redesigned ES-ISAC Web site contains a portal link to the NSAS and the SME site providing one location and seamless integration for all users.

Performance and Data Security

Users have 24/7/365 access to the NSAS, ES-ISAC, and SME sites and there is no browser-specific dependency. The system is designed with authentication-level access with Secure Socket Layer (SSL) encryption. Sites are hosted on the vendor’s production servers at a secure, multiple-layer access-controlled facility. The system and secure portals will not directly interface with any external systems.

Congressional Hearing on Electric Grid Security

NERC was invited to testify at the “Securing the Modern Electric Grid from Physical and Cyber Attacks” hearing before the Subcommittee on Emerging Threats, Cybersecurity, and Science and Technology, Committee on Homeland Security, U.S. House of Representatives on July 21, 2009. NERC will provide a brief summary of its testimony.

MRC Officer Elections and MRC Nominations

Action

None

Committee chairman Steven Naumann will lead a brief discussion on the upcoming election of MRC officers and the procedure for MRC nominations for those members whose terms expire in February 2010.

The MRC membership terms list and the applicable sections of the NERC Bylaws are attached for information.

Excerpts from NERC Bylaws

Section 3 — Election of Members of the Member Representatives Committee

a. Unless a sector adopts an alternative election procedure, the annual election of representatives from each sector to the Member Representatives Committee, and any election to fill a vacancy, shall be conducted in accordance with the following process, which shall be administered by the officers of the Corporation. During the period beginning approximately ninety (90) days and ending approximately thirty (30) days prior to an annual election, or beginning approximately forty-five (45) days and ending approximately fifteen (15) days prior to an election to fill a vacancy, nominations may be submitted for candidates for election to the Member Representatives Committee, provided that for the initial election the period may begin as soon as these bylaws are made effective and may end approximately fifteen (15) days prior to the election. A nominee for election as a sector representative must be a member, or an officer, executive-level employee or agent of a member, in that sector. No more than one nominee who is an officer, executive-level employee or agent of a member or its affiliates may stand for election in any single sector; if more than one officer, employee or agent of a member or its affiliates is nominated for election from a sector, the member shall designate which such nominee shall stand for election. The election of representatives shall be conducted over a period of ten (10) days using an electronic process. Each member in a sector shall have one vote for each representative to be elected from the sector in that election, and may cast no more than one vote for any nominee. The nominee receiving the highest number of votes in each sector shall be elected to the representative position to be filled from that sector; if there is more than one representative position to be filled from a sector, the nominee receiving the second highest number of votes shall also be elected, and so forth. Provided, that to be elected a nominee must receive a number of votes equal to a simple majority of the members in the sector casting votes in the election. If no nominee in a sector receives a simple majority of votes cast in the first ballot, a second ballot shall be conducted which shall be limited to the number of candidates receiving the two (2) highest vote totals on the first ballot (or to the number of candidates receiving the four (4) highest vote totals on the first ballot if two representative positions remain to be filled, and so forth). The nominee or nominees receiving the highest total or totals of votes on the second ballot shall be elected to the representative position or positions remaining to be filled for the sector.

   A sector may adopt an alternative procedure to the foregoing to nominate and elect its representatives to the Member Representatives Committee if (i) the alternative procedure is consistent in principle with the procedures specified in the preceding paragraph of this Section 3a, and (ii) the alternative procedure is approved by vote of at least two-thirds of the members in the sector. Any alternative procedure is subject to review and disapproval by the board.

Section 4 — Adequate Representation of Canadian Interests on the Member Representatives Committee — In addition to the requirements for composition of the Member Representatives Committee specified in Section 1 of this Article VIII, the Member Representatives Committee shall contain a number of Canadian voting representatives equal to the percentage of the NEL of Canada to the total NEL of the United States and Canada, times the total number of voting members on the Member Representatives Committee, rounded up to the next whole number. If the annual selection of members of the Member Representatives Committee pursuant to Section 3 of this Article VIII does not result in the number of Canadian

voting representatives provided for herein on the Member Representatives Committee, then the candidate who received the highest fraction of the sector vote among those candidates who would have qualified as Canadian voting representatives but were not elected to the Member Representatives Committee shall be added to the Member Representatives Committee. Additional Canadian voting representatives shall be added to the Member Representatives Committee through this selection process until the Member Representatives Committee includes a number of Canadian voting representatives equal to the percentage of the NEL of Canada to the total NEL of the United States and Canada, times the total number of voting members on the Member Representatives Committee, rounded up to the next whole number. Provided, that no more than one such additional Canadian voting representative shall be selected from a sector, except that if this limitation precludes the addition of the number of additional Canadian voting representatives required by the previous sentence, then no more than two Canadian voting representatives may be selected from the same sector. Such additional Canadian voting representatives shall be representatives of the sectors in which they stood for election, and shall serve terms expiring at the next annual meeting of the Member Representatives Committee pursuant to Section 7 of this Article VIII. For purposes of this Section 4, “Canadian” means one of the following: (a) a company or association incorporated or organized under the laws of Canada or of a province of Canada that is a member of the Corporation, or its designated representative irrespective of nationality; (b) an agency of a federal, provincial, or local government in Canada that is a member of the Corporation, or its designated representative irrespective of nationality; or (c) a person who is a Canadian citizen residing in Canada and is a member of the Corporation.
When the Corporation receives recognition from appropriate governmental authorities in Mexico as the electric reliability organization, this provision will be expanded to provide for adequate representation of Mexican interests on the Member Representatives Committee.

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.

Membership of Member Representatives Committee for 2009 - 2010

Sector	Terms expiring February 2010	Terms expiring February 2011
Voting Members		
Chairman	Steve Naumann	
Vice Chairman	Ed Tymofichuk	
Investor-Owned Utility	Maureen Borkowski	Nabil Hitti
State/Municipal Utility	Timothy Arlt	Gayle Mayo
Cooperative Utility	Michael Smith	John Prescott
Federal/Provincial Utility	Julius Pataky	Anthony Montoya
Transmission Dependent Utility	William Gallagher	Vacant
Merchant Electricity Generator	Scott Helyer	William Taylor III
Electricity Marketer	Murray Margolis	Trent Carlson
Large End-Use Electricity Customer	Irwin Kowenski	John A. Anderson
Small End-Use Electricity Customer	Lawrence Nordell	David Cleaver
ISO/RTO	Paul Murphy	Laura Manz
Regional Entity[1]	James Keller (RFC)	Terry Blackwell (SERC)
State Government	Thomas Dvorsky	Steve Oxley
Non-Voting Members		
Canadian Provincial	Jean-Paul Théorêt	
Canadian Federal	Amitabha Gangopadhyay	
U.S. – Federal	Pat Hoffman	
U.S. – Federal	Joseph McClelland	
Regional Entity	David Goulding (NPCC)	
Regional Entity	John Giddens (FRCC)	
Regional Entity	Stacy Dochoda (SPP)	
Regional Entity	Dale Landgren (MRO)	
Regional Entity	Stewart Ramsay(WECC)	
Secretary	Dave Nevius	

[1] The Sector 11 Members adopted an election protocol where each year the two voting seats rotate among the seven Regional Entity seats at the MRC.

Date Modified:
April 27, 2009

Update on CEO Search

Action Required

None

Background

On July 5, 2009, the NERC Board of Trustees, took "Action Without a Meeting" by written consent.

The Board appointed the ten independent trustees of the Board to serve as a search committee for a new chief executive officer, with Janice Case and Fred Gorbet to serve as co-chairs. The Board delegated to the co-chairs the authority to retain a search firm and organize the search effort.

Janice Case and Fred Gorbet will provide a status report to the committee.

Agenda Item 9
MRC Meeting
August 4, 2009

Event Analysis and Information Exchange

Action Required
None.

Information:
Bob Cummings, Director of Event Analysis and Information Exchange, will present an overview of the efforts to improve dissemination of lessons learned and alerts based on event analyses.

Manager of Event Analysis Information Hired
Susan Mercurio has joined the Event Analysis team as the Manager of Event Analysis Information. She will manage the Event Analysis Tracking System, trending, and lessons learned areas to more quickly disseminate findings, alerts, and lessons learned from NERC and regional event analyses to the industry.

Revisions to Event Analysis Website
The Event Analysis section of the NERC website is being revised to offer an additional lessons learned section organized by subject matter including sections on operations, system protection, communications, etc. The site revisions are to be completed in August 2009.

Trends in Event Analysis
The Event Analysis group continues its movement into the new database system, resulting in improving insights into the elements that make up 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	40
Generation vs transmission protection miscoordination	12
Protection equipment failures	7
Lack of redundancy	5
Wiring errors	4
Relay settings (drifting)	3
Design Errors	3
Logic Errors	2
Communications Failure	1
Other misoperations	2
Unexpected generator turbine control action	33
Transmission equipment failures (most initiating of disturbances)	19
Voltage sensitivity of generation auxiliary power systems	13
Human Error	12
Near-term load forecasting errors	6
Wiring errors	5
Relay loadability	4
Inter-area oscillations	4
SPS/RAS misoperations	4

The updated metrics directly highlighted 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 for 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 Classification Updates

NERC Staff and the Event Analysis Coordinating Group continue to refine the classifications for events. Staff is in the process of soliciting comments from the Planning Committee and Operating Committee on the categories.

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

Operating Security Events

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

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) for more than five minutes.

c. Frequency above the High FTL for more than five minutes.

d. Partial loss of dc converter station (mono-polar operation.)

e. Inter-area oscillations.

f. 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. System separation and islanding of less than 100 MW load or generation.

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

a. The loss of multiple bulk power transmission components.

b. The loss of load (less than 500 MW.)

c. System separation and islanding of 101 MW to 5,000 MW load or generation.

d. SPS or RAS misoperation.

e. 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 ERCOT or Québec Interconnections.)

f. 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.

g. The loss of an entire generation station of five or more generators.

h. The loss of an entire switching station (all lines, 100 kV or above.)

i. Complete loss of dc converter station.

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

a. The unplanned loss of generation (2,000 MW or more in the Eastern Interconnection or Western Interconnection and 1,000 MW or more in the ERCOT or Québec Interconnections.)

b. The loss of load (from 500 to 1,000 MW.)

c. System separation and islanding of 5,001 MW to 10,000 MW of load or generation.

d. UFLS or UVLS operation resulting in 300 MW or more load loss.

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

a. System separation and islanding of more than 10,000 MW of load or generation.

b. The loss of load (1,000 to 9,999 MW.)

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

a. The occurrence of a widespread, cascading blackout.

b. The loss of load (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 cannot 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 per contracts.

d. Demand-side management.

e. Utility load conservation measures.

Category A3: Firm load interruption imminent or in progress.

Events Tracking System

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

Not listed for brevity:

- There are 29 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.
- There are 16 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
2009-07-06	SERC	Santee Cooper	**SERC 230-kV Cross Breaker Failure –** 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 (~1,700 MW).	2	Cummings	Conference call held 13JUL09. Santee Cooper Final Report due to SERC NLT 8/6/09.	3rd qtr 2009
2009-07-02	NPCC	NE-ISO	**NPCC New England- New Brunswick Separation** – Maine Yankee – Maxcys 392 345KV line trip/SPS activation isolated Bangor Maine with the NBSO system	2	Mercurio	Awaiting prelim report from NE-ISO due by 8/15/09.	August 2009
2009-06-25	NPCC	Hydro-Quebec	**NPCC Loss of Phase II HVDC** – DC tie tripped on reported lightening strike or possibly smoke contamination from local fires caused by lightening.	2	Mercurio	Awaiting prelim report from NPCC due by 8/15/09.	August 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-06-19	SERC	Entergy	**SERC Acadiana Import Constraint** – Loss of Nine Mile natural gas unit (rotor failure) has caused transfer problems into the Acadiana area of South Louisiana. TLR-5s and possible load shedding could result.	A2	Mercurio	Requesting Abbreviated Report on event from SERC & SPP. Compliance check only at this time. Report due by 8/15/09.	August 2009
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	Awaiting Abbreviate Report due on 8/17/09.	3rd qtr 2009
2009-06-16	MRO	Otter Tail Power Co	**MRO OTP Loss of EMS** – Loss of EMS functionality for 30 minutes during installation of CIP security software. No loss of load or generation resulted.	1	Mercurio	Preliminary Abbreviated Report received 02JUL09. CVI opened. Event Analysis suspended.	August 2009
2009-06-14	NPCC	NYISO	**NYISO New Scotland** – New Scotland 345-kV bus 77K tripped open-ending 4-345-kV lines and a 345/115-kV transformer. Two other 345-kV lines attached to the 99K bus also tripped. Cause unknown.	2	Mercurio	Awaiting Abbreviated Report due 7/23/09	3rd qtr 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
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	BREC is preparing an Abbreviated Report due 7-24-09 to SERC (45 days from 6-8-09)	October 2009 SERC OC
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	An Oral report was presented at the May WECC OPS meeting. Additional work to be done and reported at the September OPS meeting.	September 2009
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	An Abbreviated Report requested from PSEI, with an oral report for the September 2009 OPS meeting.	September 2009
2009-03-26	SERC	TVA	**Sequoyah Trip** – Both Sequoyah nuclear units tripped due to common auxiliary transformer trip.	2	Cummings	Requesting additional information from TVA	3rd Quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2009-03-11	NPCC	TransÉnergie	**QB-NY Synchronization** – During the restoration of the Châteauguay back to back AC/DC converter, which had tripped out of service, the Quebec interconnection (HQI) was inadvertently synchronized with the New York ISO and the Eastern Interconnection (EI) for 29 seconds until a breaker opened at Beauharnois power station, separating the interconnections. Frequency on the HQI fluctuated from 59.93 to 60.09 before separation occurred. No load loss was reported. The event was attributed to human error in switching.	1	Allen	NPCC work complete, NERC EA technical analysis in progress.	3rd quarter 2009
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 requested at the September OPS meeting	3rd quarter 2009

Events Under Analysis or Review

Event ID	Region	ISO/RTO/ Company	Description	Event Class	NERC Lead	Status	Target Completion
2008-12-20	WECC	Arizona Public Service	**AZPS Saguaro Disturbance** – A 115-kV line fault resulted in four transformers locking out at Saguaro. The locking out of the four transformers – Saguaro 500/115-kV Transformers T4 & T7 and Saguaro 230/115-kV transformers T1 and T10 caused the loss of the additional 500-kV and 230-kV lines.	2	Cummings	An Abbreviated Report has been requested from AZPS.	3rd 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	Abbreviated Report was presented at the January 2009 WECC OPS meeting. Additional changes to be made to the report, to be finalized at September OPS meeting.	3rd Quarter 2009

Transmission Availability Data System (TADS)

1. On June 30, 2009 the TADS Task Force announced the completion of 2008 TADS reports (one for NERC and one for each region) as well as each report's associated Excel workbook. See letter at http://www.nerc.com/docs/pc/tadstf/Final_TADS_Transmittal_Letter_06-30-09.pdf.
2. On July 1, 2009 the TADSTF was retired and replaced with the TADS Working Group. See scope at http://www.nerc.com/docs/pc/tadswg/TADSWG_Scope_03-18-09.pdf.
3. On July 14, 2009, reporting Transmission Owners were notified how they could develop their own Excel workbooks that contain the same tables and figures as those in the NERC and regional reports. See letter at http://www.nerc.com/docs/pc/tadswg/TADS_Phase_I%20_2008_TO_Metrics_and_Data_%2020090714.pdf. As noted on the last page, the TADSWG expects that the review by each TO will result in some self-reported data errors, and the TADSWG will review such reports and issue revisions to its posted 2008 reports in the fourth quarter of 2009.
4. While webTADS was opened for 2009 TADS reporting in December of 2008, on July 15, 2009, Transmission Owners were provided notice to complete their initial 2009 data entry requirements by September 1, 2009. These steps include (i) confirming whether they are non-reporting or reporting Transmission Owners – only reporting TOs (those that own TADS elements that are 200 kV and greater) are required to report 2009 TADS data, but non-reporting TOs must attest that they do not own such facilities, and (ii) re-confirmation of the single TO who is responsible for reporting inventory and outages for multi-owner facilities. TADS training dates were also announced.
5. The reporting of non-automatic outages (TADS Phase II) will begin in 2010, with data for calendar year 2010 due on March 1, 2011. The attached letter dated June 11, 2009 announced the completion of the webTADS design and the schedule for completing the webTADS software.
6. The TADSWG will be meeting on August 10-12, 2009, in Waltham, MA.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

June 11, 2009

TO: ***TADS Reporting Transmission Owners***
Copy: ***TADS Regional Entity Coordinators and OATI Phase II Support staff***
Subject: Preparation for TADS Phase II

This letter is addressed to TADS "Reporting TOs" (contacts declared on webTADS Form 1.2). During 2009, each Reporting TO needs to get ready for TADS Phase II. Phase II implements the reporting of Non-Automatic Outages which occur during Calendar Year 2010. See Attachment 1 below for the Phase II implementation schedule.

Phase II Schedule

As noted on schedule item 2) and 5), internal business process changes by Reporting TOs need to be completed by fourth quarter 2009. By the first week of October 2009, webTADS Phase II software will be placed in-service on the production server and made available for all Reporting TOs to logon and begin the 2010 registration process (2010 Forms 1.2 and 2.x). From September to November 2009, NERC will host several training sessions including webTADS software changes for Phase II. Reporting TO internal data collection procedures for Phase II should be tested and ready to start outage information recording by 01/01/2010. During 4th quarter 2009, as desired by each Reporting TO, voluntary testing of such procedures will be accommodated on the TADS development server. See the last section of this letter on that topic.

Note to TOs in WECC: Since WECC's existing data collection process includes additional information beyond TADS, each TO in WECC will receive separate instructions on the WECC Schedule and how WECC TOs should submit data.

Form 6.x Bulk Upload using XML

Phase II Form 6.x data can be bulk loaded into webTADS using one of the three methods below:

Method 1: XLS Spreadsheet export to XML

This method is the same style as Form 4.x XLS spreadsheet export to a XML file. However, by October 2009 webTADS software will also provide a choice of time zone when the user uploads the XML file. The default choice will be UTC time zone. The volume of outages reported on Form 6.x is expected to be many times larger than Form 4.x. The raw outage data 'copy' and 'paste special' onto Form 6.x will be large. Error checking on the XLS spreadsheet is minimal. After data pasting and manual error correction, the individual Form XLS spreadsheets can be exported as individual XML files. After the Form 6.x XML file is created using Method 1, the user can logon to webTADS and then upload the XML file using;

Process #1

- Select the Form to import.
- Using the page filtering options navigate to the TADS company and current reporting period.

- Browse to the XML file location.
- Specify the time zone of the data (UTC is default choice).
- Upload the XML file for error checking.
- If a fatal error exists, the XML file is rejected. The data needs to be corrected, exported to a new XML file and re-uploaded one Form at a time. This process continues for each company and each individual form.

The TADS 2010 XLS Workbook can be found on Attachment 4. See the revised Form 3.4 and new Forms 6.x. After webTADS software testing is completed in September, the final workbook will be posted on the TADS website. If you plan to use the XLS workbook to produce the XML bulk upload files, or plan to enter your data manually using the webTADS graphical user interface (GUI), you may skip reading Methods 2 and 3 below. Methods 2 and 3 provide the necessary information for Reporting TOs who do NOT wish to use the XLS workbook. If you are planning to modify your TO internal business system to produce the XML bulk upload files directly, please read the information below, and review the detailed Attachments 2 and 3.

Method 2: TO Internal Computer production of Individual XML files

This method is the same style as Form 4.x bulk uploads. However, Phase II webTADS software will also provide a choice of time zone when the user uploads the XML file. The default choice will be UTC time zone. For each TO's Form 6.1, 6.2, 6.3 or 6.4 a separate XML file needs to be created following the XML design definitions specified in Attachment 2. After each XML file is created by the TO internal business process, the user can logon to webTADS and then use the above ***Process #1*** to upload the XML file.

If you are a single Reporting TO organization with an extremely large volume of data to manually manipulate and paste onto Form 6.x spreadsheets, instead of using Method 1, you may want to consider Method 2 as a better automated method of choice.

Method 3 (new): Multiple Form and Multiple Company data transfer

This method is a new option for Phase II. If your business process handles several Reporting TOs or several Forms 6.x with a large volume of outage data, Method 3 may be your method of choice. Attachment #3 describes the details of this method. Multiple company data and multiple Forms 6.x can be transferred directly from your computer to webTADS. This method enables individual outage record transactions including individual outage record deletion, addition, updates, etc. Please note, however, each XML data set transfer will be error checked and the entire data set rejected if a fatal error is found.

An individual webTADS user (single logon ID) or a single Delegated Reporting Entity (DRE) which performs data entry for numerous Reporting TOs is the likely user of Method 3. Please see Attachment #3 for details.

Voluntary TO Testing – 4th Quarter 2009

TO testing of Form 6.x bulk upload procedures is voluntary. If you plan to export Form 6.x spreadsheets into XML files (Method 1 above), this method is essentially the same as exporting Form 4.x. TO testing prior to 12/31/09 is voluntary. From 01/01/2010 to 12/31/2010 Form 6.x actual outages may be bulk uploaded onto the production server. However, from October 2009 to December 2009, voluntary TO testing of Form 6.x bulk upload procedures can be performed on the development server. If you plan to use Method 2 or Method 3, we encourage TOs & DREs to test their revised business processes (and associated XML software) during fourth quarter 2009. Please contact OATI Support prior to September 15th, if you wish to perform voluntary testing on the webTADS development server. That testing will start in October. OATI will issue a special password and link to the development server for your use. TO voluntary testing will use sample data which will be discarded after TO testing ends on December 31, 2009.

If you have questions about this letter, or Attachment 1 Phase II schedule below, or the TADSTF website documents, please contact me or John Seelke.   If you have webTADS software related questions or have questions about the attached OATI documents, please contact webTADS Support@oati.net (763-201-2000).

Jim Robinson

TADS Project Manager

Office: 610-841-3362

ATTACHMENT 1 -- Phase II Implementation Schedule:

1) **NERC/OATI Phase II software**
NERC/OATI will prepare, test, and implement webTADS Phase II software by October 1, 2009.

2) **Reporting TO internal business process modification**
The NERC board approved Phase II on October 29, 2008. From November 2008 to September 2009, each Reporting TO should modify their internal business process for TADS (including internal software changes, if any). TO software voluntary testing will begin October 1, 2009 after number 1) above is completed. During 4th quarter, TOs may perform integrated business process testing and upload bulk test data into webTADS.

3) **NERC/OATI training of webTADS users**
The course will be conducted on three separate occasions. The training time is expected to be a total of 4 hours (2 hours each day). Attendance is voluntary. The tentative training dates are;
a) September 30 & October 5, 2009 (Start Time 2PM EST)
b) October 29 & November 2, 2009 (Start Time 2PM EST)
c) November 19 & 23, 2009 (Start Time 2PM EST)
Please pick one of the above and mark the two days on your calendar. The first day will be webTADS software training, and the second day will be '*TADS Data Reporting Instruction Manual'* review. WebEx pre-registration for this course is not necessary. To attend each WebEx session, at the scheduled Start time use the following link https://nerc.webex.com/ to go to the NERC WebEx site. You may 'Join' the session five minutes prior to the scheduled Start Time. The password is 'tads'. After typing in the password, that day's telephone Bridge# and Conference ID# will be displayed (and also listed on the WebEx 'Agenda').
Prior to the start of training, the 2010 '*TADS Data Reporting Instruction Manual'* and associated '*2008 TADS Master Data Forms'* XLS workbook will posted on the TADS website (http://www.nerc.com/filez/tadstf.html). The changes will be noted in the "Version History" in the front of the Manual.

4) **2010 Form 1.2 registration**
During October 2009, each Reporting TO should logon to webTADS to complete "2010 Form 1.2" registration for the "2010 Reporting Period", update the 2010 checklist of forms, and complete Form 2.x to declare which TO will report outages on multi-owner circuits.

5) **TO internal business process changes**
These internal business process changes are necessary to collect the attributes of each Non-Automatic Outage which occur during Calendar Year 2010. See Attachment 4 sample spreadsheets for Phase II: Form 3.4 and Form 6.1, 6.2, 6.3, 6.4. Each data column on Form 6.x represents an outage attribute which needs to be recorded by the TO internal business process starting 1/1/2010. TO internal business process changes need to be finalized prior to 1/1/2010.

6) **TO 2010 data entry into webTADS**
Each Reporting TO (or their Delegated Reporting Entity) needs to complete all webTADS 2010 data entry including error corrections by 3/1/2011.

7) **NERC and TADS Regional Entity Coordinator (REC) review of TO reported data**
With the help from the appropriate TO, each REC will review the data starting 3/2/2011, and finish TO confirmed corrections by 3/23/2011. NERC review of the TO reported data will occur from 3/24 to 4/7/2011.

ATTACHMENT 2 – Form 6.x XML Design Definitions:

See PDF file named "ATTACHMENT 2 – Form 6.x XML Design Definitions"

or

Logon to webTADS → chose the HELP menu → Document named "webTADS-XML-Schema-Reference v1.3"

ATTACHMENT 3 – Computer to Computer Data Transfer:

See PDF file named "ATTACHMENT 3 – Computer to Computer Data Transfer"

or

Logon to webTADS → chose the HELP menu → Document named "webTADS Web Service User Guide v1.1"

ATTACHMENT 4 – 2010 TADS Workbook including Phase II Forms:

See XLS workbook file named "ATTACHMENT 4 – 2010 TADS workbook 20090529.XLS"

This work book includes the revised spreadsheets for 2010 including Form 3.4, Forms 6.1, 6.2, 6.3, and 6.4. After software testing is completed during September 2009, the final 2010 workbook will be posted on the TADS website (http://www.nerc.com/filez/tadstf.html).

Ad Hoc Group for Generator Requirements at the Transmission Interface

In response to the growing concern from the generation community regarding the NERC decision, ultimately upheld by FERC, to register New Harquahala Generating Company as a Transmission Owner and Transmission Operator, NERC undertook a survey in the Fall 2008 to identify the concerns, to review and highlight those Transmission Owner and Transmission Operator requirements that should be considered for generic applicability for Generator Owners and Generator Operators for their tie-line facilities, and to collect ideas for how the issue could be resolved. There were wide-ranging viewpoints to the topic from the over 100 respondents but there was no support for merely assigning all Transmission Owner and Transmission Operator requirements to the Generator Owner and Generator Operator on the basis of the interconnection facilities. One consistent suggestion was to assemble a group of industry representatives to analyze and make recommendations for resolving the issue, thereby establishing general criteria for determining whether Generator Owners and Generator Operators should be registered for Transmission Owner and Transmission Operator requirements in NERC's Reliability Standards.

Accordingly, in February 2009, NERC announced the formation of the Ad Hoc Group for Generator Requirements at the Transmission Interface.

Group Objective

"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."

Group Composition

The group was selected to provide a cross-section of participants across different geographic regions and industry segments, specifically linked with various NERC technical groups, and representative of both the operating and planning perspectives. The size of the group was intentionally managed to foster an efficient and effective disposition of the group's obligations. The group consisted of the following members:

Scott Helyer, Chair	Tenaska, Inc.
Steven Cobb	Salt River Project
Keith Daniel	Georgia Transmission Corporation
Jeffrey Gillen	American Transmission Corporation
Anthony Jankowski	We Energies
Gregory Mason	Dynegy Generation
Eric Mortenson	Exelon Energy Delivery
Timothy Ponseti	Tennessee Valley Authority
Kent Saathoff	Electric Reliability Council of Texas, Inc.
Gerry Adamski	NERC Staff Coordinator

Problem Statement

The group devoted energy at the outset of the effort to clearly define and understand the problem that the group was organized to address. In this deliberation and determination, the group developed the following problem statement, assumptions, and process description that it used to guide its activities thereafter:

Problem Statement
Certain equipment either owned or operated by generators may be defined as part of the Bulk Electric System. As such, the group needs to determine which owner and operating requirements are needed for reliability purposes for these facilities and then identify the functional entity[1] accountable for compliance with those requirements.

Assumptions

1. There are pieces of equipment at 100 kV and above currently owned and operated by generators that may fall under the definition of Bulk Electric System and therefore are under the purview of the NERC Reliability Standards.
2. For pieces of equipment identified in assumption No. 1 above, at least one functional entity must be identified to be responsible for each standard requirement applicable to these facilities at an ownership and operating level, understanding that multiple ownership and operating arrangements exist.[2]
3. Separate the ownership expectations from the operating expectations in the discussion.
4. Current standard requirements assigned to Generator Owners and Generator Operators are appropriate.

Process to Address Identified Problem

1. Review the list of standard requirements applicable to either Transmission Owners or Transmission Operators that are not currently applicable to either Generator Owners or Generator Operators.
2. Determine which of the Transmission Owner standard requirements not assigned to Generator Owners should always be, never be, or could possibly be assigned to address potential reliability gaps based on the equipment owned by the Generator Owner.
3. Determine which of the Transmission Operator standard requirements not assigned to Generator Operators should always be, never be, or could possibly be assigned to address potential reliability gaps based on the equipment operated by the Generator Operator.
4. Determine if these requirements are already covered by other existing reliability standard requirements.
5. If not, determine a strategy for identifying the functional entity that should be assigned the responsibility for these requirements, not necessarily limited to the current list of functional entities.
6. Perform sensitivity analyses using the list of "parking lot" questions/issues to determine further activities for the group.
7. Finalize recommendations within a final report that includes potential SARs.

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[1] The use of the term "functional entity" is not intended to limit group consideration to those functional entities currently utilized in NERC's Reliability Standards. If in its deliberation, the group identifies a new functional entity that should be defined, the group can make such a proposal.

[2] The goal is to assign responsibility for these requirements to a single functional entity but recognize that clear delineation of these responsibilities must be identified when multiple entity arrangements apply.

List of Issues to Be Addressed

The following issues were offered by the commenters in response to the NERC survey request for input and are being addressed by the ad hoc group in its evaluation.

1. Identify what is needed to ensure the reliable supply of real and reactive power to the grid; determine the goal of the GO and GOP requirements (bulk electric system reliability vs. interconnection reliability)
2. Effect of interconnection configuration on standard requirements and applicability
3. Review existing GO and GOP requirements to identify reliability gaps
4. Defining functional lines of demarcation between the generator and the transmission owner
5. Impact of operational control or ownership of equipment in the transmission substation containing the generator interconnection facilities
6. Effect of FERC-filed interconnection agreements and other agreements between GO and GOP and the TO and TOP
7. Bifurcated review of GO requirements and GOP requirements
8. Review the NERC Glossary of Terms definitions for Transmission, Generator Owner, Generator Operator, Transmission Owner, and Transmission Operator
9. NERC Compliance Registry Guidance
10. Material impact test for interconnection facilities
11. Functionality test — does the facility function as part of the generation function or the transmission function
12. Approach for multi-unit plants interconnected through a single transmission line
13. Generic application of requirements vs. case-by-case determination
14. Affect on applicability if generators provide ancillary services (blackstart, reactive control, regulation, reserves, etc.)
15. Consideration of generators that are included in:
    a. special protection scheme or remedial action scheme
    b. coordinated underfrequency program
    c. coordinated undervoltage program
    d. blackstart
    e. SOL or IROL limits
    f. Provision of firm energy
16. Need for additional maintenance-based generator owner requirements on interconnection facilities when generators already have financial incentive to remain as available as possible
17. Develop new transmission functional category — Generator-Tie

Current Status

The group held its kickoff meeting in concert with the NERC standing committee meetings in March 2009. Subsequently, the group held numerous conference calls and two additional in-person meetings to consider the issues and develop a consensus opinion regarding the direction to proceed. The group is currently finalizing its draft report and is expected to provide the report for an industry review and comment period in late July. The group will reflect on the comments received and finalize its report with a target completion date of mid-September. With the assumption that the group meets this schedule, the proposed conclusions and recommendations will be available for discussion at the August MRC meeting.

Update on Regulatory Matters
(As of July 10, 2009)

MRC Action Required

None

Regulatory Matters in Canada

1. May 8, 2009 – Agreement on the Development of Electric Power Transmission Reliability Standards and of Procedures and a Program for the Monitoring of the Application of these Standards for Québec, signed by NERC, NPCC, and the Régie

2. June 8, 2009 – British Columbia Utilities Commission adopts 103 NERC reliability standards as being mandatory and enforceable in British Columbia

3. June 2009 – Manitoba adopts legislation making NERC reliability standards mandatory and enforceable in Manitoba.

4. As of July 1 – Alberta Utilities Commission has approved 47 reliability standards as mandatory and enforceable in Alberta; more standards are pending.

FERC Orders Issued Since the Update for the May 5 – 6, 2009 Meetings

1. April 23, 2009 — Letter Order requesting additional information regarding the settlement of New Harquahala Generating Company LLC's registration as Transmission Owner and Transmission Operator. *Docket No. RC08-4-002*

2. April 30, 2009 — Notice of Penalty Order – the Commission stated it would not further review the following Notices of Penalty – *Docket No. NP09-15-000* Black River Generation, LLC, *Docket No.NP09-16-000* Dynegy, Inc., and *Docket No. NP09-17-000* FPL Energy, LLC.

3. May 13, 2009 — Letter Order accepting NERC's February 6, 2009 errata filing addressing revisions to fifteen Reliability Standards. *Docket No. RD09-2-000*

4. May 21, 2009 — Notice of Proposed Rulemaking to approve Reliability Standard PRC-023-1 (relay loadability). *Docket No. RM08-13-000*

5. May 21, 2009 — Order approved regional Reliability Standard BAL-004-WECC-1 and directed WECC to develop modifications to the standard. *Docket No. RM08-12-000* (*Order No. 723*)

6. May 21, 2009 — Order approving the interpretation of BAL-003-0 R2 and R5 and the Commission remands the interpretation VAR-001-1 R4 and directed the ERO to revise the interpretation. *Docket No. RM08-16-000*

7. May 22, 2009 — Letter Order approving revisions to Reliability*First* Corporation Bylaws. *Docket No. RR09-3-000*

8. May 29, 2009 — Order extending time period for consideration of Notice of Penalty Wisconsin Public Service Corporation. *Docket No. NP09-21-000*

9. May 29, 2009 — Notice of Penalty Order – the Commission issued a notice stating it would not further review the following Notices of Penalty - *Docket No. NP09-18-000* Northern States Power Company, *Docket No. NP09-19-000* Northern States Power Company, *Docket No. NP09-20-000* Kissimmee Utility Authority, *Docket No. NP09-22-000* Escanaba Municipal Electric Utility, *Docket No. NP09-23-000* NorthWestern Energy, and *Docket No. NP09-24-000* Upper Peninsula Power Company.

10. June 1, 2009 — Order accepting NERC's February 17, 2009 compliance filing regarding revised CMEP and NERC Rules of Procedures. *Docket Nos. RR06-1-021, et al.*

11. June 12, 2009 — Notice of Penalty Order – the Commission issued notice stating it would not further review the following Notice of Penalty – Mirant Mid-Atlantic. *Docket No. NP09-25-000*

12. June 18, 2009 — Notice of Proposed Rulemaking on revised mandatory Reliability Standards for Interchange Scheduling and Coordination (INT-005-3, INT-006-3 and INT-008-3). *Docket No. RM09-8-000*

13. June 24, 2009 — Order accepting NERC's two December 19, 2008 compliance filings pertaining to Violation Severity Level assignments, one in response to June 19, 2008 Order and the second in response to the November 20, 2008 Order. *Docket Nos. RR08-4-003 and RR08-4-004*

14. June 29, 2009 — Order conditionally accepting NERC's April 1, 2009 compliance filing of true-up of actual 2008 costs incurred by NERC and each Regional Entity to their respective 2008 budgets. *Docket No. RR07-16-005*

15. June 30, 2009 — Letter Order accepting NERC's compliance filing certifying that SPP RE has performed the reconciliation of its system accounts. *Docket No. RR07-16-006*

NERC Filings Since the Update for the May 5-6, 2009 Meetings

1. April 20, 2009 — Request for clarification of Order No. 723 regarding the Version Two Facilities Design, Connections and Maintenance Reliability Standards. *Docket No. RM08-11-001*

2. April 21, 2009 — NERC and NPCC submitted a supplemental compliance filing regarding the comprehensive list of BES facilities within the US portion of the NPCC region. *Docket No. RC09-3-001*

3. April 21, 2009 — NERC submitted a settlement agreement between Texas Regional Entity and Constellation Energy Commodities Group on a registration issue. *Docket No. RC08-7-001*

4. April 30, 2009 — NERC submitted a compliance filing in further support of its July 25, 2008 compliance filing in New Harquahala Generating Company, LLC. *Docket No. RC08-4-002*

5. April 30, 2009 — NERC submitted its first quarter 2009 report on the analysis of voting results for Reliability Standards. *Docket No. RR06-1-000*

6. April 30, 2009 — NERC submitted an informational filing in response to paragraph 629 of Order No. 693, regarding the timeframe to restore power to the auxiliary power systems of US nuclear power plants following a blackout as determined during simulations and drills of system restoration plants. *Docket No. RM06-16-000*

7. May 1, 2009 — NERC submitted Notices of Penalty for the following: *Docket No. NP09-18-000* Northern States Power Company; *Docket No. NP09-19-000* Northern States Power Company; *Docket No. NP09-20-000* Kissimmee Utility Authority; and *Docket No. NP09-21-000* Wisconsin Public Service Corporation.

8. May 4, 2009 — NERC submitted Notices of Penalty for the following: *Docket No. NP09-22-000* Escanaba Municipal Electric Utility and *Docket No. NP09-23-000* NorthWestern Energy.

9. May 7, 2009 — NERC submitted a Notice of Penalty for *Docket No. NP09-24-000* Upper Peninsula Power Company.

10. May 11, 2009 — NERC submitted comments in response to the Commission's Smart Grid Policy Statement. *Docket No. PL09-4-000*

11. May 12, 2009 — NERC and Texas Regional Entity submitted comments in support of the settlement agreement among NERC, Texas Regional Entity and Constellation Energy Commodities Group. *Docket No. RC08-7-001*

12. May 14, 2009 — NERC submitted a Notice of Penalty for *Docket No. NP09-25-000* Mirant Mid-Atlantic LLC.

13. May 21, 2009 — NERC submitted a petition for approval of the proposed revisions to the bylaws of Southwest Power Pool. *Docket No. RR09-4-000*

14. May 22, 2009 — NERC submitted a petition for approval of Version 2 Critical Infrastructure Protection Reliability Standards (CIP-002-2 through CIP-009-2). *Docket Nos. RM06-22-000 and RD09-7-000*

15. May 29, 2009 — NERC submitted a compliance filing with modifications to Violation Severity Levels for three revised Facilities Design, Connections and Maintenance reliability Standards (FAC-010-2, FAC-011-2 and FAC-014-2). *Docket No. RM08-11-000*

16. June 1, 2009 — NERC submitted an informational filing in response to paragraph 629 of Order No. 693, regarding the timeframe to restore power to the auxiliary power systems of US nuclear power plants following a blackout as determined during simulations and drills of system restoration plants. *Docket No. RM06-16-000*

17. June 5, 2009 — NERC and NPCC submitted a further status report regarding NPCC's application of the definition of BES in NPCC. *Docket No. RC09-3-000*

18. June 8, 2009 — NERC submitted a petition for approval of proposed revisions to the Standards Development Process of Texas Regional Entity and related Regional Entity rules. *Docket No. RR09-5-000*

19. June 17, 2008 — NERC submitted a petition for approval of WECC Regional Reliability Standard IRO-006-WECC-1. *Docket No. RM09-19-000*

20. June 18, 2009 — NERC and MRO submitted a response to the Commission's May 29, 2009 Order regarding NERC's May 1, 2009 Notice of Penalty filing of Wisconsin Public Service Corporation. *Docket No. NP09-21-000*

21. June 22, 2009 — NERC submitted a compliance filing in response to specific directives in Order No. 713-A regarding Violation Risk Factors for Reliability Standard IRO-006-4. *Docket Nos. RM08-7-000 and RM08-7-001*

22. June 24, 2009 — NERC submitted 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.

23. June 29, 2009 — NERC and WECC submitted a status report in response to Paragraph 230 of the Commission's March 21, 2008 Order regarding WECC's justification for its proposed deviation from the NERC *pro forma* hearing procedures regarding omission of NERC's shortened hearing procedure from the WECC hearing procedure. *Docket Nos. RR06-1-012 and RR07-7-002*

24. June 30, 2009 — NERC submitted modifications to Violation Risk Factors for four Requirements of Critical Infrastructure Protection Reliability Standards (CIP-002-1 through CIP-009-1). *Docket Nos. RM06-2-009*

25. June 30, 2009 — NERC submitted a petition for approval of Violation Severity Levels for the Critical Infrastructure Protection Reliability Standards (CIP-002-1 through CIP-009-1). *Docket No. RM06-22-008*

26. July 6, 2009 — NERC submitted a compliance filing in response to Order No. 722 and provided Violation Risk Factors for the WECC Regional differences for requirements to FAC-010-2 and FAC-011-2. *Docket No. RM08-11-002*

27. 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.

28. July 20, 2009 — NERC's assessment of its performance to the Commission three years from the date of certification as the Electric Reliability Organization. *Docket No. RR06-1-000*

Anticipated NERC Filings

1. July 27, 2009 — NERC expects to submit comments in response to the Transmission Relay Loadability Reliability Standard NOPR. *Docket Nos. RM08-13-000*

2. July 31, 2009 — NERC must submit a compliance filing in Response to June 1, 2009 Order on Delegation Agreements and CMEP. *Docket Nos. RR06-1-021, et al.*

3. July 31, 2009 — NERC must submit a quarterly report in response to January 18, 2007 Order regarding Analysis of Reliability Standards Voting Results April – June 2009. *Docket No. RR06-1-003*

4. August 15, 2009 — NERC expects to file the directed modification to the NUC-001-1 Standard Requirement R9.3.5 with the Commission by August 15, 2009 (one industry comment period) or by November 15, 2009 (two industry comment periods). Per the November 17, 2008 Compliance Filing in *Docket No. RM08-3-000*

5. August 24, 2009 — NERC must submit proposed 2010 business plans and budgets for NERC and the eight Regional Entities.

6. August 28, 2009 — NERC must submit revised Violation Risk Factors for BAL-004-WECC-1. The Commission directed WECC to develop modifications, pursuant to its regional Reliability Standards Development Procedure, to BAL-004-WECC-01 to address the Commission's specific concerns, as discussed in the Order. *Docket No. RM08-12-000*

7. September 15, 2009 — NERC must submit a compliance filing to establish an appropriate implementation timetable for nuclear power plants to comply with CIP standards. *Docket No. RM06-22-000*

8. September 18, 2009 — NERC must submit a compliance filing on the historical Data, the 2008 Compliance Report and the FERC Guidelines regarding Violation Severity Levels (see November 20 Order). *Docket Nos. RR08-4-001 and RR08-4-002*

9. October 27, 2009 — NERC must submit Violation Severity Levels for all requirements and sub-requirements of BAL-004-WECC-1. The Commission directed WECC to develop modifications, pursuant to its regional Reliability Standards Development Procedure, to BAL-004-WECC-01 to address the Commission's specific concerns, as discussed in the Order. *Docket No. RM08-12-000*

10. October 31, 2009 — NERC must submit a quarterly report due in response to January 18, 2007 Order regarding Analysis of Reliability Standards Voting Results July – September 2007. NERC was directed to monitor and report to the Commission the voting results, analysis of voting results (including trends and patters of stakeholder approval) to the Commission for three years. *Docket No. RR06-1-003*

11. November 15, 2009 — (See August 15 to see if we filed anything) NERC expects to file the directed modification to the NUC-001-1 Standard Requirement R9.3.5 with the Commission by August 15, 2009 (one industry comment period) or by November 15, 2009 (two industry comment periods). Per the November 17, 2008 Compliance Filing in *Docket No. RM08-3-000*

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

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

Training and Education

MRC Action Required

None

Training and Education Program

The Training and Education program develops and maintains appropriate training and education activities for NERC staff, regional entity staff, industry participants, and regulators affected by new or changed reliability standards or compliance requirements.

Compliance Auditor Training

NERC is delivering a training program for compliance auditors on interview techniques, correct protocols, processes, investigation techniques, and other necessary skills. An initial fundamentals course is delivered to team leaders quarterly. An initial fundamentals course for industry volunteers who participate on compliance audits is also being delivered. A complete program with continuing learning activities will continue to be developed over the next three years to equip NERC compliance auditors with the necessary skills to effectively perform audits.

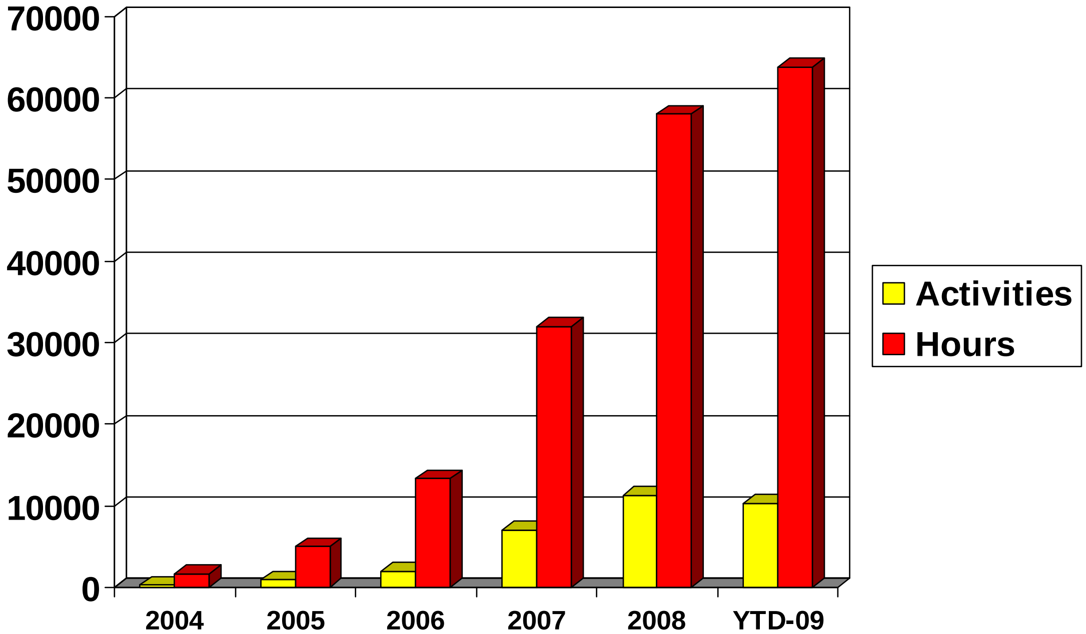
Deliverables	Status
One advanced skills Evidence Gathering e-learning module for audit team leaders and audit team members.	Completed and delivered on-schedule. Delivered on demand since April 30, 2008. As of 6/9/09 the course has been completed by 330 users.
One course on how to develop compliance elements for reliability standards (partnering with standards group) for compliance element development resource pool volunteers.	As of 6/9/09 this course has been completed by 13 users.
One classroom-based Compliance Violation Investigation course	Course completed and launched on 1/28/09. Offered quarterly to NERC and Regional Entity CVI staff. As of 6/9/2009 23 participants have completed this course
One instructor-led IT Auditing course on CIP Standards for audit team leaders.	As of 6/9/09, 92 participants have completed this course.
One instructor- led fundamentals course for regional entity compliance lead auditors.	Delivered once a quarter with 4 scheduled in 2009. 148 auditors have completed this course.

Webinar Series

In 2008 NERC began hosting Webinars for the industry to educate industry participants on NERC topics and pressing industry issues. The Webinars and the slides are available to industry participants. 20 Webinars have been held drawing over 7,500 industry participants. This highly successful Webinar series is continuing throughout 2009.

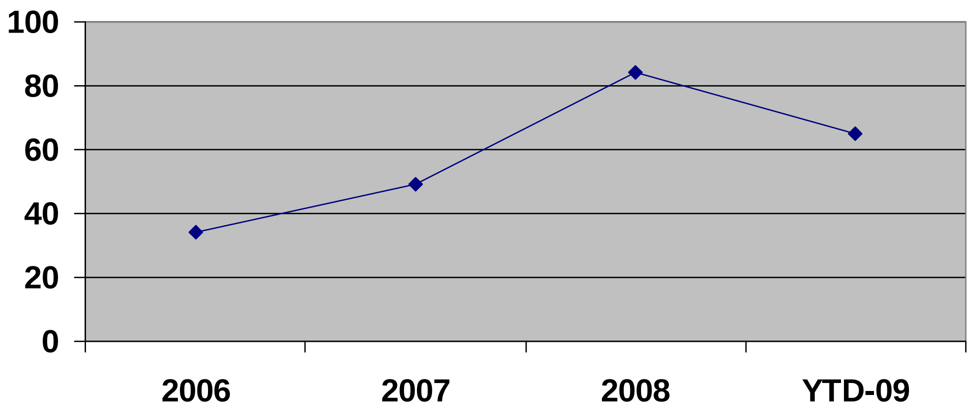
Continuing Education Program

Since the Continuing Education (CE) Program started, the number of NERC-approved providers has increased from 48 to 210. As the chart below shows, these providers now offer over 10,300 approved learning activities and over 60,000 EC hours of instruction to system operators. Most of the growth is due to NERC's 2006 approval to use CE hours to maintain a certification credential. We expect to see continued growth in the number of courses and CE hours of instruction as system operator's transition into three-year credentials.



Approximately 152,000 hours were awarded in 2006, over 280,000 hours were awarded in 2007, and over 399,000 hours were awarded in 2008. Since January 1, 2009, system operators have earned 188,291 CE hours. We anticipate continued growth of the CE program as increasing numbers of NERC-certified system operators use CE hours to maintain their credentials. As shown in the chart below, the average annual training hours received by the population of approximately 5,750 operators is over 80 hours through December of 2008. To date in 2009, the annualized average training hours received by each certificate holder is 65 hours.

Average Annual Training Hours per Certified Operator



Audits of CE activities started in 2008 to ensure the quality of the activities matched the description in the application. As of the end of 2008, 152 audits were performed with audits of 200 activities scheduled for 2009. Audits of courses delivered in the first quarter of 2009 will begin soon.

Training Program Accreditation Process

The Personnel Subcommittee (PS) is in the process of researching the feasibility of establishing a voluntary Training Program Accreditation Process. The Continuing Education Program has set the bar for quality training courses, which can be used to maintain a system operator's certification. This program has an inherent limitation, however, in tying courses taken by system operators to their specific jobs and tasks. Reliability Standard PER-005 fills some of that void by requiring documentation of competency for all system operators that impact the reliability of the bulk power system. The proposed accreditation process is envisioned to go beyond these requirements to recognize a provider's methodologies that are proven to result in the desired performance outcomes, instead of stating how to train. Traditionally, training program accreditation has focused on how an organization develops and delivers training, not on the outcomes of their approach to develop and deliver training.

The PS is investigating what type incentives could be offered to training providers that would meet the criteria of a performance-based training program based on outcomes which validate system operator capabilities to do their tasks. The PS is also identifying the types of outcomes that could be used as metrics for such an accreditation program.

The PS plans to post a white paper for industry review and comment by the end of 2009.