

Panel I, Written Remarks
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Good afternoon Chairman Wellinghoff, Commissioners, staff, and fellow panelists.

My name is Gerry Cauley and I am the President and Chief Executive Officer (CEO) of the North American Electric Reliability Corporation (NERC). It is NERC's mission to ensure the reliability of the bulk power system of North America and promote reliability excellence and accountability.

Identifying Priorities for NERC Activities

We initially gathered in February to identify reliability priorities for managing conventional and emerging risks. Today, as requested, I will address the four topics posed by the Commission:

- a. What is the status of the priorities at the February technical conference? What are the most critical reliability issues and/or standards development initiatives that need to be addressed in 2011 and 2012? Has NERC's prioritization tool been useful?
- b. One of the priorities was improving the compliance and enforcement process. How is that being addressed?
- c. What are the biggest challenges to addressing these priorities and/or completing these initiatives in an effective and timely manner? What next steps are appropriate to timely and effectively address the priorities discussed?
- d. How do NERC and reliability standards development teams incorporate in new or re-ordered priorities regarding reliability standards into their work plans? How emerging issues are considered and are any becoming high priorities?

2011 has been a challenging, but productive year. NERC moved forward on several priority initiatives, including standards prioritization, vegetation management, the definition of the Bulk Electric System (BES), critical asset identification, and reliability risk management. NERC has worked with the Commission to analyze lessons from major events, including the southwest cold weather event, the southern California event, and the severe snow event in the northeast. NERC announced a new compliance enforcement initiative, released reliability assessments addressing environmental regulations, a foundational report identifying new reliability performance measures, and root cause analysis methods that further enforce the setting of reliability priorities. NERC also conducted a grid security conference, an industry cybersecurity exercise, and moved forward on the development of cybersecurity standards. Twenty-two lessons learned and nine alerts have been posted this year. As noted in February, our goal is to develop a list of priorities to focus, up to a three year horizon, on areas most likely to have a positive impact on bulk power system reliability.

1. Status of the Priorities Identified by NERC at the February Technical Conference

In January, I outlined eight priorities for NERC, noting four specifically related to conventional risk management:

- i. *Ensuring relay protection systems operate as expected and faults are cleared without unnecessarily tripping other equipment.*

Status Update: One of NERC's top priority reliability issues is the misoperation of protection systems.¹ Nearly all major system failures, excluding the events caused by severe weather, include protection system misoperations as a factor contributing to event propagation. NERC's Transmission Availability Data System (TADS) and event analysis programs allow for the identification of simultaneous transmission line outages. Based on pooled information for 2008-2010, nearly one-third of all sustained automatic forced outages are dependent or common mode events. Though a number of protection systems are intended to trip three or more circuits, many events exceed planned protection operations needed to clear a fault. These events, especially those involving three or more automatic outages, are a high priority for NERC and the industry.²

The NERC-wide misoperation data for the second quarter of 2011 was received and the aggregated metric results have been posted on the NERC public reliability indicators web page:

- A total of 812 misoperations were reported for the quarter. Of these, 95 percent were designated as "unnecessary trips" and 5 percent as "slow or failure to trip." The most prevalent cause of unnecessary trips is "incorrect setting/logic/design errors," accounting for 35 percent of the total misoperations. This category includes "engineering" errors in protection system settings, documentation, and application, as well as uncoordinated settings and incorrect schematics
- Further analysis shows that 75 percent of the misoperations were associated with microprocessor-based relays, which are more complex than other technologies

In response to these findings, NERC formed a cross-functional team to develop a risk-informed response to include effective action steps. The goal is to achieve year-on-year misoperation reduction targets by deploying specific actions and tracking protection system performance. If suitable reductions are not realized, additional action plans will be developed toward meeting overall industry reduction goals.

Further, NERC has published, eight individual, *Relay Protection Systems Lessons Learned in 2011* that address the following subjects:

- Special Protection Systems (SPS) maintenance precautions
- Relay Protection Systems coordination for close-in faults

¹<http://www.nerc.com/fileUploads/File/News/NERC%20President%20Top%20Priority%20BPS%20Reliability%20Issues%201-7-11.pdf>

²http://www.nerc.com/files/2011_RARPR_FINAL.pdf

- Relay Protection Systems misoperations
- Power line carriers and misoperations
- Field revision to Relay Protection Systems
- Transmission Relaying – voltage transfer failure
- Transmission Relaying – removing unused components
- Use of out of date Relay Protection System technical prints

NERC continues to implement the System Protection Initiative, which addresses misoperation, relay loadability, protection system coordination, relay maintenance, analysis and mitigation of misoperations. Work is underway on five protection-related standards that address various aspects of protection systems. Standards on overall protection system reliability (redundancy) and disturbance monitoring are also pending.

In January 2011, NERC worked with Regional Entities to revise regional procedures based on the PRC-003 Reliability Standard, and developed a consistent approach to the collection³ of misoperation information, along with systematic analysis and correction of the underlying causes. As a long-term solution, the ERO has placed a high priority on Reliability Standard Project 2010-05 to retire PRC-003 and revise the current PRC-004 Reliability Standard by modifying misoperation definitions and making reporting more consistent.

The Commission issued a notice of proposed rulemaking (NOPR) on PRC-023 addressing relay loadability this year and NERC filed comments in response to the NOPR on November 21, 2011. Additionally, NERC continues to prioritize addressing all the directives from Order No. 733 and Order Nos. 733A and B.

In addition, the Order No. 754 technical conference concerning the single point of failure issue has led NERC to undertake the development of a data request to determine the prevalence of and risk associated with this issue. NERC will make an informational filing with the Commission by March 15, 2012, addressing additional work in this area, and will follow up with status reports as needed once the data request has been issued, and responses have been received and analyzed.

As a long-term solution, the ERO has placed a high priority on Reliability Standard Project 2010-05 to retire PRC-003 and revise the current PRC-004 Reliability Standard by modifying misoperation definitions and making reporting more consistent.

- ii. *Ensuring field engineers and technicians modify system configuration, including protection and control settings, only after assessment of the consequences and after informing operating personnel when a change in configuration could temporarily set up a common mode failure.*

Status Update: Along with the efforts mentioned above, a “rapid development” effort to address protection system misoperations is underway, and an interim data collection effort to

³ http://www.nerc.com/files/2011_RARPR_FINAL.pdf
p://www.nerc.com/docs/pc/rmwg/Protection_System_Misoperation_Reporting_Template_Final.xlsx

uniformly measure the number of such events was implemented. NERC anticipates having a draft standard developed that will address system misoperations by August 2012 for presentation to the NERC Board of Trustees for approval.

In addition, NERC has initiated a new human performance program. Human error is often cited as the reason for almost 80 percent of all incidents and accidents in complex high-risk systems in many industries, including aviation, petrochemical, healthcare, construction, mining, and nuclear power industries. Many of the major events that occur in the bulk power system initially are labeled as human error. When the 80 percent human error is broken down further, the number reveals the majority of errors stem from latent organizational issues. The point of a human error investigation is to understand why people did what they did. It is the thorough analysis of events and near-misses, and the subsequent understanding of the root causes that allows organizations to prevent future occurrences.

The transfer of important reliability messages requires a variety of instruments that can advise practices and training, particularly those that can affect the reliability of the bulk power system. Sharing across the North American industry allows expertise and experience to strengthen the grid as a whole, making everyone more successful in meeting reliability objectives.

- iii. Ensuring operating personnel use clear, unambiguous communications when issuing directives and communicating other operational information.*

Status Update: Work is underway on a communications standard to move in the direction of three-part communication – a communication protocol where information is verbally stated by a party initiating a communication, the information is repeated back correctly to the party that initiated the communication by the second party that received the communication, and the same information is verbally confirmed to be correct by the party who initiated the communication.

- iv. Preventing, non-random equipment outages, such as those caused by vegetation or objects within the safe clearance distance from energized lines, and common mode issues with generation, such as we saw during extreme cold conditions.*

Status Update: Two significant efforts have occurred on vegetation management in 2011. On November 3, 2011, the NERC Board of Trustees approved the FAC-003-2-Vegetation Management Standard that was developed using a “results-based” model. Secondly, industry has done has been very responsive to NERC’s 2010 alert on right of way clearances.

The proposed FAC-003-2 standard embodies a defense-in-depth approach to improving the reliability of the electric transmission system by requiring:

- Management of vegetation within the right-of-way to prevent vegetation encroachment into the flash-over clearance;
- Documentation of maintenance strategies, procedures, processes, and specifications used to manage vegetation to prevent potential flash-over conditions including consideration of 1) conductor dynamics and 2) the interrelationships between vegetation growth rates, control methods, and the inspection frequency;

- Timely notification of vegetation conditions that could cause a flash-over at any moment to the appropriate control center;
- Corrective actions to ensure that flash-over distances will not be violated due to work constraints such as legal injunctions;
- Annual inspections of vegetation conditions; and
- Completion of the annual work needed to prevent flash-over

This standard is expected to be filed with the Commission for approval in December 2011.

Right-of-Way Alert

In 2010, a vegetation contact by a Transmission Owner identified actual field conditions that varied significantly from design assumptions -- to the point where some facility ratings were considered inaccurate or in question. Follow-up resulted in the conclusion that this situation was not restricted to one entity or Region. As a result, NERC issued an alert (recommendation) on October 7, 2010, to proactively identify other such conditions and promote corrective actions. In this alert, NERC recommended that Transmission Owners review their current Facility Ratings Methodology for solely and jointly owned transmission lines to verify that the methodology used to determine facility ratings is based on actual field conditions.

During 2011, NERC provided guidance and information to alert recipients for performing assessments, including guidance and information regarding the prioritization of facilities. Review criteria were issued to industry in April. The assessment plan review criteria were used to guide Regional Entity staff in review of assessment plans and provide further assistance to the owners in meeting the intent of the recommendation. Two webinars were held, and NERC developed a semi-annual owner reporting spreadsheet to be used for reporting progress. For the July 15 report date, there were a total of 278 assessments completed.

On November 17, 2011, FERC issued an Order approving Reliability Standard FAC-008-3 (Facility Ratings), which presents clear, measurable, and enforceable requirements that obligate Transmission Owners and to develop facility ratings methodologies for their facilities.

2. Critical Reliability Issues and/or Standard Development Issues to be Addressed in 2011 and 2012 - Improving the Compliance and Enforcement Process

During 2011, NERC focused on numerous reliability priorities, metrics, vegetation management, cybersecurity and a redesign of the standards process. Numerous taskforce initiatives also are underway, continuing the implementation of the 2010 *High Impact, Low Frequency Risk Report*, including the GMD task force and cybersecurity standards. One of the more significant efforts was the compliance enforcement initiative.

NERC's Compliance Enforcement Initiative

Compliance and enforcement process improvements in 2011 include new streamlining efforts and refinement of reporting mechanisms. From January to August, 2011, NERC implemented a new spreadsheet Notice of Penalty (NOP) format, known as the

Administrative Citation NOP that included minor, documentation or administrative violations. There were 285 violations filed in the eight Administrative Citation NOPs. The Commission did not review any violations that were filed in that format.

Building upon the success of the Administrative Citation NOP format, on September 30, 2011, NERC filed with FERC a *Petition Requesting Approval of New Enforcement Mechanisms and Submittal of Initial Informational Filing*. The petition included a description of NERC's new compliance enforcement initiative (CEI), by which the ERO can exercise its enforcement discretion to process possible violations pursuant to different tracks, according to risk. For FERC's information, the first group of 117 remediated issues that were processed under a new enforcement track referred to as Find, Fix, Track and Report (FFT). On the same day, in separate proceedings, NERC submitted 75 violations in a new spreadsheet Notice of Penalty (NOP) format, as well as 27 violations in three full NOPs. The Commission did not review any violations filed in the first spreadsheet Notice of Penalty or in the full Notices of Penalty that were submitted on September 30.

The CEI represents a more comprehensive and integrated compliance and enforcement strategy that differentiates and addresses compliance issues according to their significance to the reliability of the bulk power system. The goal of the CEI is to: (i) refocus industry efforts on achieving reliability excellence through attention to matters that pose risks to the reliability of the bulk power system; (ii) reduce undue regulatory burdens on users, owners and operators; and (iii) improve caseload processing.

Under the CEI, possible violations are still expected to be found, fixed, and reported to Regional Entities, NERC, and the FERC. Lesser risk issues that have been corrected will be reported to FERC as remediated issues in a FFT spreadsheet submitted for informational purposes only. Violations that pose a more serious risk will continue to be processed through to a NOP, either as a spreadsheet NOP or a full NOP, depending on the case. The spreadsheet NOP is an evolution of the Administrative Citation NOP format, using the spreadsheet reporting format for a larger group of violations.

The CEI represents a change in the way the ERO monitors compliance with and enforces Reliability Standards and is not limited to the September 30, 2011, filing. Going forward, the Regional Entities will continue to designate, and NERC will continue to file, remediated issues with FERC each month in an FFT informational filing. In the initial phase of CEI, auditors and other compliance staff will be able to recommend FFT treatment of certain findings, but the ultimate disposition will be determined by Regional Entity enforcement staff. In a second phase of CEI, which will be implemented at least 12-to-18 months after the September 30, 2011, filing and after significant training of compliance staff, staff will be able to designate certain findings for FFT treatment without enforcement staff oversight. NERC will have a series of webinars and workshops to guide compliance and enforcement staff at all levels on successful use of FFT.

On October 31, 2011, NERC filed its second FFT informational filing and its second spreadsheet Notice of Penalty. These remain pending before the Commission.

Notably, the CEI does not affect changes in the way that dismissals are identified or processed. Dismissals of violations occur when the Compliance Enforcement Authority (CEA) determines the particular issue does not constitute a violation of a NERC Reliability Standard, the entity is not subject to compliance with the standard at issue, or the particular issue is a duplicate of one already in process. One enhancement to the existing program is that NERC will publicly post certain dismissal information on its website. NOPs and FFTs are among the many tools of NERC to convey important compliance and enforcement information to the industry. NERC and Regional Entities utilize Lessons Learned, Compliance Application Notices, Compliance Application Reports, Case Notes and other bulletins, reports and newsletters. NERC and Regional Entities continue to host webinars, workshops and meetings to provide forums for discussion and dissemination of information. NERC and the Regional Entities are promoting a learning concept, and greater efforts are being devoted to educating the industry on expectations for compliance. NERC and Regional Entities are committed to ongoing outreach and educational opportunities.

3. Integration of Emerging Reliability Risk Issues into the Standards Prioritization Plan

As the ERO, NERC has developed risk control strategies and solutions by measuring the key, quantifiable components of bulk power system reliability. Refinement of risk control measures consists of calculated performance based on factual data. These measures are then weighted based on risk to reliability to further refine and identify trends and emerging issues. Additionally, NERC displays a quarterly updated set of reliability indicators on its website,⁴ showing the ongoing status of bulk power system reliability.

NERC gathers information about system events to provide data needed to develop probabilistic risk information and trending. For example, NERC's Transmission Availability Data System (TADS)⁵ began collecting forced outage information beginning in 2008, and will begin gathering industry information on unit generating outages through its Generating Availability Data System (GADS),⁶ voluntarily provided since 1980, and provided in a mandatory fashion starting in 2012. In October, NERC launched the Demand Response Availability Data System (DADS) to provide a basis for projecting the affects of both dispatchable and non-dispatchable demand response on capacity planning and operational reliability. Demand response enrollment and event information will be collected and assessed on a semi-annual basis with summer and winter reporting periods.

Using event information, NERC has developed a reliability severity-risk curve, calibrated with real events representative of the risk to bulk power system reliability. Risk control goals include avoiding high-impact and medium-impact controllable risk. Based on objectives, industry action can be encouraged to meet risk control goals. The ultimate aim of NERC's risk control work is to illuminate the historical, overall bulk power system reliability landscape and reduce the risk to reliability by assessing robust data and tracking risk levels as indication of performance.

⁴ <http://www.nerc.com/page.php?cid=4|331>

⁵ <http://www.nerc.com/page.php?cid=4|62>

⁶ <http://www.nerc.com/page.php?cid=4|43>

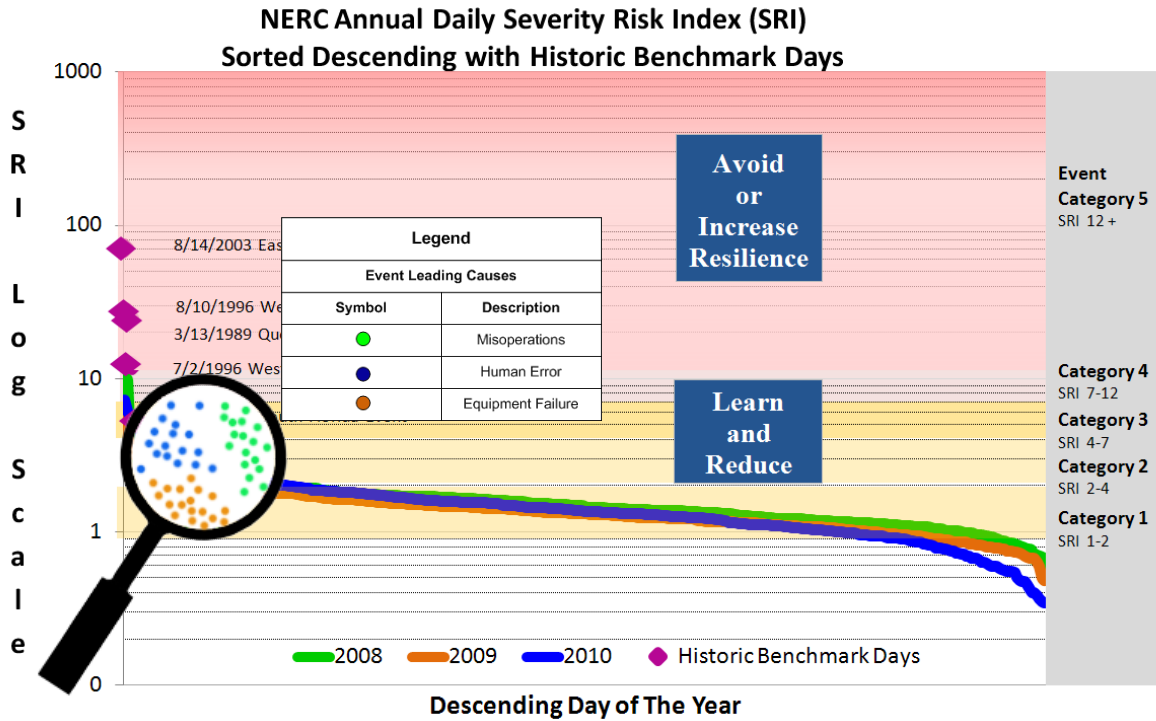
The four steps of the risk control cycle are to:

- i. Identify risk clusters, connect contributing activities, and set risk measures to monitor performance improvement progress;
- ii. Select the significant risk clusters as priority projects based on reliability impacts;
- iii. Organize attention, resources and creativity around the priority projects and develop coordinated and multifunctional solutions; and
- iv. Take actions, measure and demonstrate results.

NERC developed a risk control framework and performance measurement approach to identify specific problems and measurement of the impacts of industry activated solutions. Information and data gathered by NERC enables measurement of the risk to reliability using trend evaluation and detailed analysis supported by hard data, rather than anecdotal evidence.

NERC's premier foundational report *2011 Risk Assessment of Reliability Performance* report⁷ provides an industry reference for historical bulk power system reliability, as well as analytical insights with a view to action. The key findings and recommendations provide targeted input to NERC's Reliability Standards and project prioritization, compliance process improvement, event analysis, reliability assessment, and critical infrastructure protection. This foundational report will be produced annually, published in late spring, beginning in 2012. The findings will represent NERC's annual view of the state of reliability, supported by performance metrics and analysis, and will portray trends and measurement of the progress towards reliability improvement.

⁷ http://www.nerc.com/files/2011RMWG_Annual_Report.pdf.



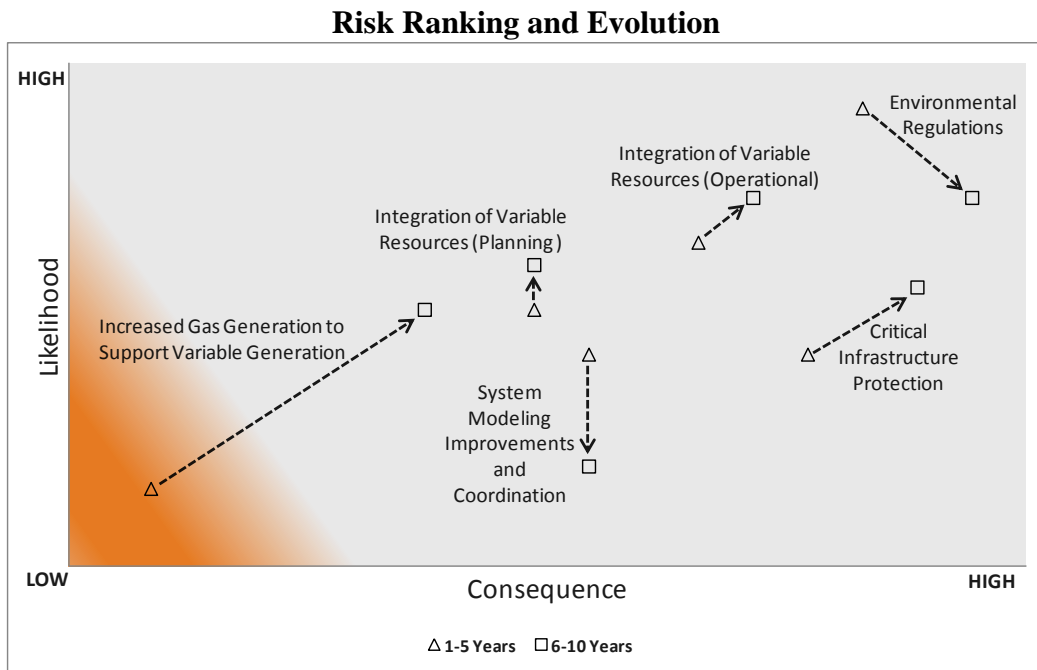
Additionally, NERC annually reviews, assesses, and reports on the overall electric reliability of the interconnected bulk power system in North America. As part of its seasonal assessments, NERC requests information pertaining to lessons learned in previous seasons. Preparations to address these seasonal elements are then evaluated and determinations made regarding industry readiness to address the lessons learned, along with the overall preparations to maintain bulk power system reliability.

Further, in its long-term reliability assessment, NERC identifies and analyzes the impact of key issues and trends that may affect reliability in the future, such as market practices, industry developments, potential technical challenges, technology implications, and policy changes. For NERC’s annual long-term reliability assessment, the risk from standing and emerging reliability issues is measured based on their perceived likelihood of occurrence and potential consequences to reliability of the bulk power system. For example, in the 2011 *Long-Term Reliability Assessment*, six emerging reliability issues have been identified:

2011 Emerging Reliability Issues

- Environmental Regulations and Impacts to BPS Reliability
- Integration of Variable Generation (Operational)
- Critical Infrastructure Protection
- Integration of Variable Generation (Planning)
- System Modeling Improvement and Coordination
- Increased Gas Generation to Support Variable Generation

Risk Ranking and Evolution⁸



⁸ The risk vectors resulting for the likelihood and consequence ranking for each of the emerging or standing reliability issues are developed for both the one to five (1-5) year and six to ten (6-10) year timeframes are shown below (see figure below). Risk vectors for the 1-5 year timeframe are represented by a diamond—the 6-10-year risk vectors are represented by the square. With this perspective, relative risk of each issue is determined based on the Planning Committee survey results. Shifts in relative risk can be measured by evaluating the change between the two time periods.

Issues identified in the upper-right quadrant of the figure are considered to be high-likelihood of occurrence and high-consequence to the reliability of the bulk power system. This risk assessment is completed each year and acts as a platform to inform stakeholders, regulators, policy makers and the general public what issues NERC believes need to be most critically addressed.

Further, for issues identified as high-likelihood of occurrence and high-consequence to the reliability of the bulk power system, a detailed special reliability assessment can be completed to further understand the implications to reliability. Scenario analysis also can be performed to assess the robustness of the reference case against the scenario results, and to determine how the issues affect bulk power system reliability. The most recent examples are the assessment of resource adequacy impacts from potential environmental regulations and integration of variable generation.

Recommendations to augment or modify NERC's Reliability Standards can result from these Special Reliability Assessments. For example, the integration of variable generation activity has provided direct input into NERC's Modeling and Data Standards (MOD) and a host of additional recommendations have been made for use in standards prioritization.

4. NERC's Progress on High-Impact, Low-Frequency Risks

Beginning in the third quarter of 2010, NERC began following the ESCC's Critical Infrastructure Protection Roadmap⁹ with activities outlined in NERC's Technical Committee's Critical Infrastructure Strategic Initiatives Coordinated Action Plan.¹⁰ These activities included organizing four task forces:

- Cyber Attack Task Force
- Geomagnetic Disturbance Task Force
- Severe Impact Resiliency Task Force
- Spare Equipment Database Task Force

Each task force has made significant progress toward its goals. For example, at its November 3, 2011 meeting, NERC's Board of Trustees approved the Special Report: *Spare Equipment Database*, which provides a platform for the re-development of a voluntary, industry-wide Spare Equipment Database (SED). This database initially will focus on providing an inventory of critical transmission and generator start-up transformer spares managed by North American bulk power system Transmission and Generation Owners. Gathering information to support the database is expected to commence in the second quarter of 2012.

The affects on the bulk power system from Geomagnetic Disturbances continue to be a topic of interest in many public forums. Recognizing the resiliency of the bulk power system to disturbances is extremely high, this potential vulnerability will require an understanding of what additional resiliency and design improvements are required to maintain bulk power system reliability. I have spoken to Congress, as well as at the NERC sponsored

⁹ http://www.nerc.com/docs/escc/ESCC_Critical_Infrastructure_Strategic_Roadmap.pdf

¹⁰ http://www.nerc.com/docs/ciscap/Critical_Infrastructure_Strategic_Initiatives_Coordinated_Action_Plan_BOT_Appr_11-2010.pdf

geomagnetic disturbance workshop in April and various forums on NERC's activities and our approach to determine system vulnerability and integrated solutions. NERC's industry workshop¹¹ provided an opportunity for industry input into NERC's activities on preparation and mitigation actions to inform industry on potentially heightened precautions they could consider to minimize the risk to the bulk power system from severe geomagnetic disturbances. Further, the workshop provided an opportunity for industry input in an *Industry Advisory Alert* on geomagnetic disturbances,¹² which provided a set of operational and planning actions to prepare for the effects of a severe Geo-Magnetic Disturbances (GMD) on the bulk power system.

The Geomagnetic Disturbance Task Force has focused on:

- Equipment vulnerability, including transformers, breakers, relaying, capacitive/reactive elements and generation
- Geomagnetic disturbance space storm wave fronts, and expected intensity levels for a one-in-one hundred year frequency level, along with latitudinal risk
- Integrated planning and operating solutions to strengthen system response

A report with recommendations and next steps will be sent to the Planning, Operating and Critical Infrastructure Committees in December 2011, with a final Board of Trustees approval expected in the first quarter of 2012.

Meanwhile, the Cyber Attack Task Force will send its first draft report to the Critical Infrastructure Protection Committee meeting in December, and the Severe Impact Resiliency Task Force will provide its first draft at the March 2012 Operating Committee meetings.

5. Cybersecurity Initiatives and Standards

Work to secure the grid is ongoing and will continue into the future. The ability to provide industry with key information on a timely basis remains a top priority. NERC, through the ES-ISAC, issued alerts to the industry addressing cyber attacks exploiting RSA Secure ID authentication, Stuxnet and Night Dragon. The system is well known by industry, handles confidential information and does so in an expedited manner. NERC sponsored the Grid Security Conference to advance information sharing and education between NERC, the government and the electricity industry. More than 20 educational sessions were scheduled on topics ranging from Advanced Persistent Threat, Industry Best Practices in Grid Security, and Electric Facility Threats and Violence. With wide representation from organizations across the United States and Canada, the conference provided security professionals with real tools and information that they can take back to their companies and improve their security posture.

NERC also recently completed the first grid cybersecurity readiness exercise. With more than 75 government and industry partners participating, the two day exercise assessed NERC and the industry's crisis response plans to validate current readiness in response to a cyber

¹¹ See GMD Workshop Proceedings at

http://www.nerc.com/docs/pc/gmdtf/GMD_Workshop_Report_April_2011.pdf

¹² http://www.nerc.com/fileUploads/File/Events%20Analysis/A-2011-05-10-01_GMD_FINAL.pdf

incident. The conference and the exercise enhanced collaboration between NERC, the industry and government stakeholders.

NERC filed a petition for approval of the CIP Version 4 Reliability Standards with FERC on February 10, 2011. The CIP Version 4 standards were developed in response to directives in Order No. 706¹³ and propose to modify CIP-002-3 to include bright-line criteria for the identification of Critical Assets, replacing the current entity-developed risk-based assessment methodology in CIP-002-3. NERC also developed conforming changes to the seven remaining CIP Version 4 Reliability Standards.

The CIP Version 4 standards serve as an interim step to addressing the complete set of directives in Order No. 706. NERC anticipates responding to all of the Order No. 706 directives in the CIP Version 5 standards, which currently are under development.

The proposed CIP Version 5 standards collapse the steps of identifying Critical Assets and Critical Cyber Assets into a single step of characterizing “BES Cyber Systems” as “High Impact,” “Medium Impact,” or “Low Impact” based on the impact of cyber systems to the reliable operation of the bulk power system. This characterization makes use of a bright-line concept similar to Version 4, but rather than the two-step process, requires responsible entities to determine the impact of loss, compromise, or misuse of a given BES Cyber System to a bright-line impact filter.

Other notable features of the proposed CIP Version 5 standards include that they are expected to:

- Reduce technical feasibility exceptions
- Provide for developing consistent identification criteria of BES Cyber Systems and application of cyber security requirements that are appropriate for the risk presented to the BES
- Provide for developing requirements that foster a culture of security and due diligence in the industry
- Provide guidance and context for each standard requirement
- Develop a realistic and comprehensive implementation plan for the industry
- Leveraging current stakeholder investments used for complying with existing CIP requirements.

NERC anticipates filing the proposed CIP Version 5 standards with the Commission for approval in the third quarter 2012, pending a successful industry ballot and NERC Board of Trustees approval.

6. Redesign of the Standards Development Process to Improve Throughput Timelines and Quality

As announced in the February conference, NERC’s Board of Trustees approved actions to improve the pace of the standards process. As noted then, NERC continues to examine and implement new ways to further expedite the development process.

¹³ *Mandatory Reliability Standards for Critical Infrastructure Protection*, Order No. 706, 122 FERC ¶ 61,040, *order on reh’g*, Order No. 706-A, 123 FERC ¶ 61,174 (2008).

The NERC Standards Committee was granted authority to expedite the standards development process. Methods for expediting this process include:

- Shortening the 45-day formal comment period;
- Shortening the 30-day period for forming the ballot pool;
- Allowing significant modifications following the initial ballot without the need for another formal comment period provided the modifications are highlighted before conducting any successive ballot; and
- Shortening any of the 10-day ballot windows

One area of focus was shortening the time needed to develop an initial draft of a proposed standard. With a goal of developing a standard in a year, NERC piloted a “rapid development” project that uses a small team to develop the first draft of a standard for posting along with the Standard Authorization Request (SAR). The SAR and draft standard will then be formally submitted to the Standards Committee for posting, consistent with the Standard Processes Manual approved by FERC.

Additionally, rather than developing an interpretation and making revisions later to the same standard, the Standards Committee developed a “rapid revision” process for addressing interpretations by making a permanent revision to the standard. Responses to interpretation requests are limited to a standard of strict construction based on the language in the standard; however, there are often times when a change to the language in the standard would be more effective than developing an interpretation. As envisioned, the timeline for developing a successful “rapid revision” is accomplished within six months. A trial of this rapid revision process is underway for an interpretation request of the MOD-028-1 standard, and is expected to be presented to the Board of Trustees in February 2012.

NERC staff has provided legal and compliance personnel to review draft standards and provide feedback to standard drafting teams. This improves the overall quality of standards before they are posted for formal comment periods.

A strategic review of the full standards process has been initiated to assess other efficiency opportunities, while adhering to the general principles set out in the NERC Rules of Procedure, with a goal of filing with FERC for approval before the end of 2012.

7. NERC’s Prioritization Tool Has Been Useful

NERC’s prioritization tool was enhanced in 2011 to evaluate a project based on its reliability impact, time sensitivity, and practicality. The tool has been useful at ranking identified standards development projects and at providing information to help establish appropriate resource allocation. The tool provides a transparent way to accomplish this goal.

The Standards Committee has responsibility for establishing standards development project prioritizations and making modifications as appropriate to ensure the industry is allocating resources to achieve established goals. The prioritization tool has been helpful in serving as an aid in the prioritization effort. The Standards Committee’s intention is to continually improve and refine the tool to address those issues of greatest importance to the industry.

NERC also is working to improve the prioritization effort by factoring in such issues as cost/benefit in increasing stakeholder participation in analysis of individual projects.

The prioritization tool will continue to be effective in ranking planned and identified standards development projects as it has during the development of the last two versions of the Reliability Standards Development Plan. However, the prioritization tool is only one factor in the development of the ERO standards development priorities, and additional factors must be considered. NERC is investigating processes for formally triaging incoming issues to determine how and when a standards related response is the best approach for addressing the reliability risk associated with emerging issues.

8. Biggest Challenges to Addressing Priorities in an Effective and Timely Manner

This year saw a significant focus on prioritization throughout NERC. Whether through the standards prioritization process, the compliance enforcement initiative, the GMD task force, or cybersecurity standards, we have moved forward with an aggressive schedule. The biggest challenge to completing priority standards is managing issues that come up during that year that are of importance to NERC, its stakeholders and FERC, while maintaining a focus on priorities. Resource allocation is always a concern, and the Commission's support of NERC's budget is helpful.

Overall, ongoing dialogue with the Commissioners and their staff helps facilitate increased understanding and communication of NERC initiatives and priorities. Participation of Commissioners and their staff at NERC board meetings offers a better understanding of NERC initiatives and priorities.

Conclusion

Although less than a year has passed since our last conference, I am pleased to report the progress on many of the priorities we discussed in February. There is more to do. As always, you have my commitment to work with you in partnership to ensuring the reliability of the bulk power system. I thank you for your attention and look forward to your questions.