April 30, 2012

VIA ELECTRONIC FILING

Ms. Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

Re: NERC Analysis of NERC Standard Process Results First Quarter 2012 in Docket Nos. RR06-1-000, RR09-7-000

Dear Ms. Bose:

The North American Electric Reliability Corporation ("NERC") submits its Analysis of NERC Standards Process Results for the Fourth Quarter 2011 ("Ballot Results Filing"). This filing is submitted in response to the Federal Energy Regulatory Commission's ("FERC") January 18, 2007 Order[1] requiring NERC to closely monitor and report to FERC the voting results for NERC Reliability Standards each quarter for three years. In a subsequent order issued on September 16, 2010, the Commission renewed and expanded on its directive for an additional three years.[2]

The Ballot Results Filing is included as **Attachment A** to this filing. The Ballot Results Filing addresses ballot results during the January 1, 2012 to March 31, 2012 time frame and includes NERC's analysis of the voting results, including trends and patterns of stakeholder approval of NERC Reliability Standards. NERC requests that FERC accept this filing as compliant with the renewed directive in the September 16, 2010 Order to submit quarterly reports for an additional three years from the date of the order.

Respectfully submitted,

/s/ Andrew M. Dressel
Andrew M. Dressel
Attorney for North American Electric Reliability Corporation

cc: Official service list in Docket No. RR06-1-000

[1] *Order on Compliance Filing*, 118 FERC ¶ 61,030 at P 18 (2007).
[2] *Order on the Electric Reliability Organization's Three-Year Performance Assessment*, 132 FERC ¶ 61,217 at P 85 (September 16, 2010).

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Analysis of NERC Standards Process Results

First Quarter 2012

April 30, 2012

RELIABILITY | ACCOUNTABILITY




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Introduction

NERC develops Reliability Standards in accordance with Section 300 of its Rules of Procedure and the NERC *Standard Processes Manual*, which is included as Appendix 3A to the NERC Rules of Procedure.[1] This report is responsive to directives from the Federal Energy Regulatory Commission ("FERC" or the "Commission") directing NERC to monitor, analyze and report on the results of its standards development processes.[2]

At the end of each calendar quarter, NERC updates this report by incorporating results from the most recent calendar quarter, to monitor and report progress on improvements to various aspects of the standards development process. The first section of this report provides an overview and analysis of ballots conducted during the first quarter of 2012. The second section compares timelines for the projects balloted in the first quarter 2012 against baselines provided in the report filed on April 30, 2011, on the time to complete each phase of standards development. The comparison to the historical baselines is responsive to the Commission's directive to analyze the time required to complete each phase of the standards development process. NERC staff and the Standards Committee use this analysis to monitor successes and to identify opportunities for improvements.

[1] NERC's Rules of Procedure are available at: http://www.nerc.com/page.php?cid=1|8|169.

[2] *See Order on Compliance Filing,* 118 FERC ¶61,030 (January 18, 2007). *See also, Order on the Electric Reliability Organization's Three-Year Performance Assessment,* 132 FERC ¶61,217 at P 85 (September 16, 2010) ("Three-Year Assessment Order"). Specifically, the Three-Year Assessment Order directed NERC to analyze:

(i) the time required to complete projects (excluding urgent action projects);
(ii) the time required to complete projects initiated in response to NERC's urgent action progress (including whether or not a permanent fix was implemented within the sunset period); and
(iii) the time required to complete projects in response to Commission directives. The analysis should include data on the time required for each stage of the process. For example, the analysis should document the time required to move a proposed Reliability Standard from a Standards Authorization Request to the NERC Board, and then to the Commission.

Analysis of Q1 2011 Standards Ballot Results

From January 1, 2012, through March 31, 2012, NERC conducted 25 ballots for eight separate standards projects. Table 1 summarizes these ballot events. A complete record for each project is available on NERC's website on the Ballot Results webpage.[3]

Table 1

Project Type[4]	Project Number & Name	Q1 Ballot Events	Status
Revision	2006-06 – Reliability Coordination	Successive ballots and non-binding polls of three standards	Ongoing
Revision	2007-03 Real-Time Transmission Operations	Successive ballots and non-binding polls of three standards	Ongoing
New/Revision	2007-09 Generator Verification	Successive ballots and non-binding polls of two standards	Ongoing
Revision	2007-17 Protection System Maintenance & Testing	Successive ballot and Non-binding poll of one standard	Ongoing
New/Revision	2008-06 Cyber Security	Initial ballots for ten standards and a set of definitions	Ongoing
Interpretation	2009-26 Interpretation of CIP-004-1	Successive ballot of one interpretation	Ongoing
Interpretation	2010-INT-05 Interpretation of CIP—002-1	Initial ballot of one interpretation	Ongoing
Revision	2011-INT-02 Interpretation of VAR-002	Initial ballot of one standard	Ongoing

[3] The Ballot Results webpage is available at: https://standards.nerc.net/Ballots.aspx.

[4] Appendix A to this report provides a brief description of each type of standards project.

All of the eight projects balloted during the first quarter 2012 were still ongoing at the end of the quarter. Five of the eight projects involve revising or developing multiple standards. The eight projects are summarized above in Table 1, and additional details are provided below. For each project involving multiple standards, separate ballots were conducted for each standard. This differs from NERC's past practice of conducting a single ballot for multiple standards in the same project. Balloting each standard individually provides more specific information about which standards require additional development work.

Ballots were conducted in the first quarter 2012 for the following projects:

- Project 2006-06 Reliability Coordination: this is a project that merges requirements from eight standards addressing real-time operations and capability-related requirements for the Reliability Coordinator into a set of six standards. Three of the standards completed ballot and were approved by stakeholders in 2011; successive ballots for each of the three remaining standards were completed in early February 2012. All three ballots achieved high quorums and ballots for two of the three standards achieved weighted segment approval of more than 80 percent. The ballot for the third standard achieved an approval of approximately 55 percent, indicating that more development needs to be done to reach sufficient consensus.
- Project 2007-03 Real-time Transmission Operations: this is a project that merges multiple requirements from ten standards addressing real-time operations and capability-related requirements for Transmission Operators and Balancing Authorities into a set of three standards. A successive ballot for the three standards concluded on January 12, 2012. All of the standards achieved a high quorum and two of the three achieved weighted segment approvals near 80 percent. The ballot for the third standard achieved a weighted segment approval of approximately 60 percent, indicating that more development needs to be done to reach sufficient consensus.
- Project 2007-09 Generator Verification: this is a project that involves developing five standards focused on generator modeling and capabilities. Two of the five standards in Project 2007-09 were posted for successive ballots during the first quarter 2012. Both ballots achieved over 80 percent quorum and approval ratings(approximately 41 and 61 percent approval) that were significantly improved over the initial ballot, although stakeholder feedback indicated that additional development was needed to improve the clarity and consistency of these standards.
- Project 2007-17 Protection System Maintenance and Testing: this is a project that merges requirements from four protection system maintenance standards into a single standard. A successive ballot achieved a high quorum and ballot approval of approximately 74 percent. The drafting team is considering technical input from stakeholder comments to determine what, if any, additional development is needed.
- Project 2008-06 Cyber Security Order 706: this is a project that involves realigning and expanding a set of eight cyber security related standards into a set of ten more risk-based standards. Twelve ballots were conducted in the first quarter 2012; one for each of the ten CIP standards, one for the group of associated definitions, and one for the implementation plan. Each of the ballots achieved high quorums with weighted segment approvals ranging from 22.09 percent to 33.49 percent, indicating that

additional development was needed to improve the clarity and consistency of these standards.

- Project 2011-INT-02 Rapid Revision, Request for Interpretation of VAR-002: this project was a revision to one standard to address an issue identified in a request for interpretation. The initial ballot for this standard received a high quorum and weighted segment approval of more than 63 percent.
- Two CIP Interpretations were balloted in the first quarter of 2012. One of the Interpretations, Project 2009-26 Interpretation of CIP-004-1 achieved a weighted segment approval of approximately 80 percent. The second project, 2010-INT-05 Interpretation of CIP-002-1 achieved a very high approval of 94 percent. Both achieved a very high quorum.

Q1 2012 Ballots and Comparison to Baseline Data

In the version of this report filed on January 31, 2011, NERC provided baselines for each phase of development for standards projects. These baselines were established by grouping all NERC standards projects from 2006 through 2010 into four categories (new standards, revisions to existing standards, expedited projects, and interpretations) and then averaging the times for each phase of development within each group. Averages were developed "by project" without consideration to the number of standards associated with each project.

In this section of this and future reports, NERC will compare the projects balloted each quarter against these baselines. These comparisons may highlight anomalies initially, but over time the comparison will help to identify trends in the time required for various phases of standards development.

As noted above, during the first quarter of 2012, ballots were conducted for eight standards projects. Six of the standards projects balloted this quarter are categorized as "revisions to existing standards" for the purposes of comparing to baselines. Two projects are categorized as interpretations.

Chart 1 compares the development phases for each of the six revision projects in this quarter to the baseline. Only standards projects balloted during the first quarter 2012 are included in the chart. All of the standards presented to the NERC Board of Trustees for adoption in the first quarter completed balloting in the fourth quarter of 2011. Similarly, all standards filed with FERC for approval in the first quarter 2012 completed balloting and were approved by stakeholders in earlier quarters, and are not included in this chart.

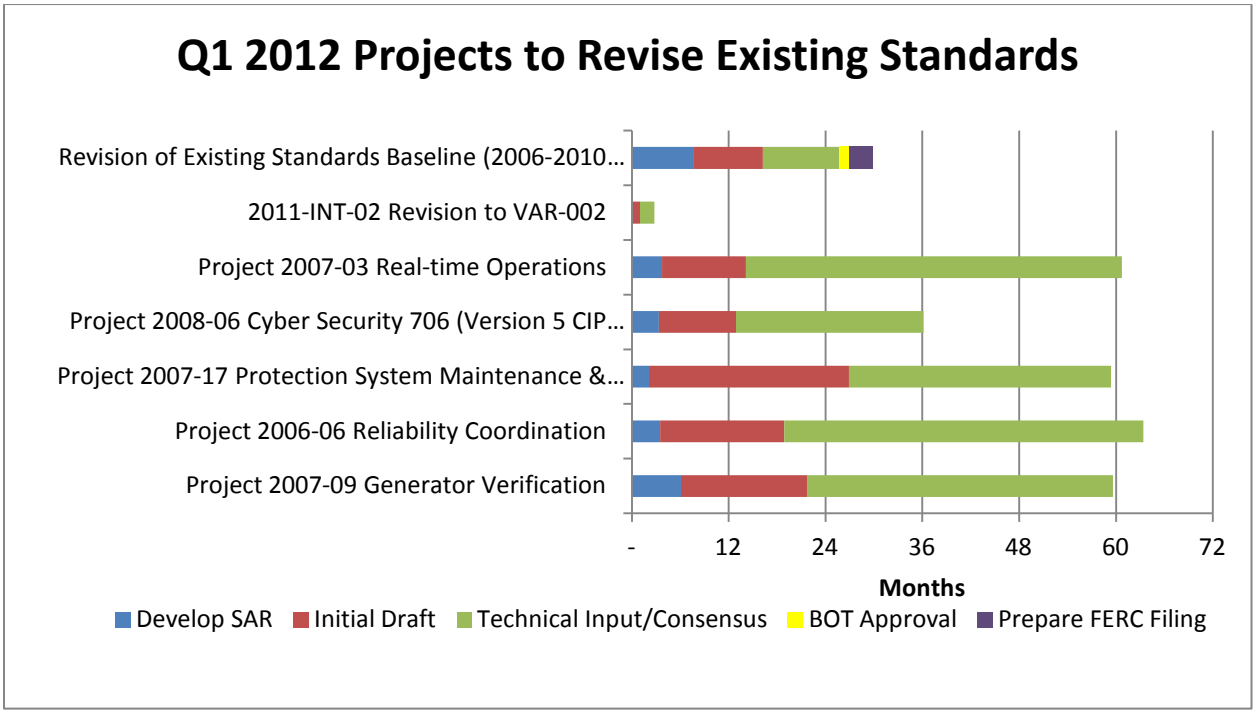

Chart 1

Chart 2 compares the development phases of the two interpretation projects to the baseline.

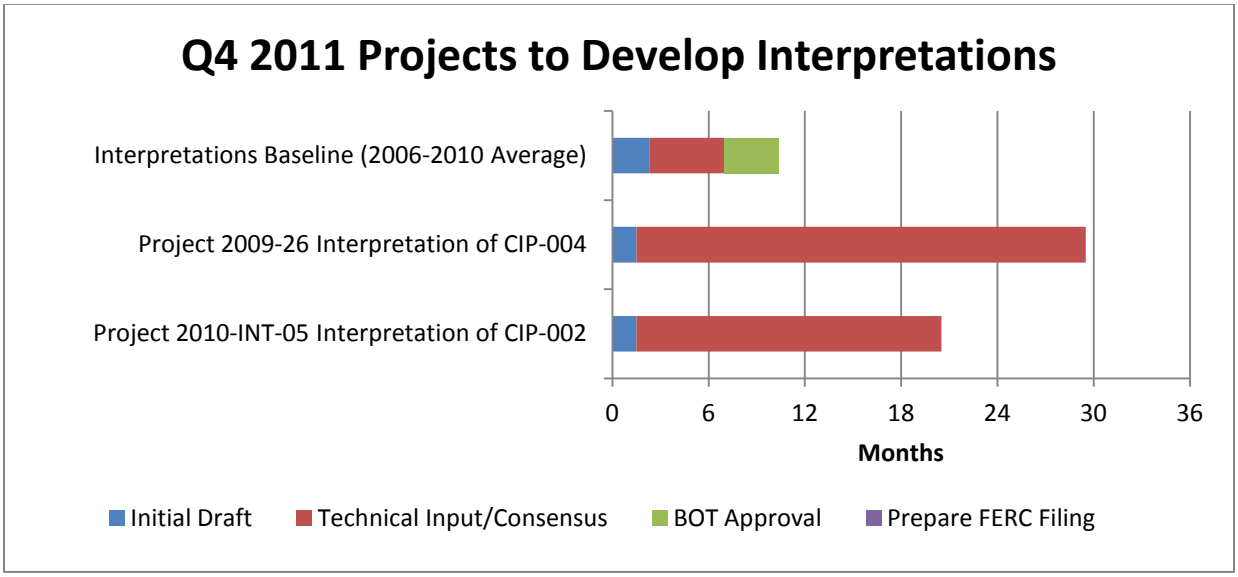

Chart 2

SAR Development Phase. For all standards projects balloted in the first quarter of 2012, the SAR was finalized quickly after being posted for industry review. From 2006 to 2010, SAR development times averaged eight months for a project to revise one or more existing standards. The SAR development period for five of the six standards revision projects balloted during the first quarter of 2012 was less than five months; for the sixth project the SAR development phase was just slightly longer than the baseline.

Initial Draft Phase. All but one of the projects balloted in the first quarter 2012 required a longer period of time to develop an initial draft than the baseline for the comparable type of project. The baseline data (for projects developed from 2006 to 2010) was developed without consideration for the number of standards included in a project, making direct comparisons to project durations for projects involving development of multiple standards challenging. The duration for the initial draft phase for projects balloted in the first quarter 2012 ranged from nine and a half months (for Project 2008-06 Version 5 CIP Standards) to just under 16 months (for Project 2007-09 Generator Verification). For comparison, the 2006-2010 average duration of this phase of standard development was between eight and nine months for projects to revise standards, and almost 14 months for projects to develop new standards.

In some cases, the longer period to develop an initial draft encompasses work by the drafting team to develop the necessary technical basis for the standard or standards. For example, the Project 2007-09 Generator Verification project required 18 months to develop an initial draft. Although Project 2008-06 Version 5 CIP Standards required nine months to develop initial drafts

of revisions to eight standards, much of that time was devoted to developing a set of concepts for industry review. These concepts were intended to expedite drafting by obtaining industry input at an early stage before draft standards were posted.

Two factors should contribute to a reduction in the length of time required to develop an initial draft in the future. First, projects initiated under the revised processes of the Standard Processes Manual must have the technical justification or basis for the standard developed prior to project initiation, which is likely to reduce delays caused by the development and analysis of a technical basis for requirements. Second, under the project prioritization initiative developed by the Standards Committee, projects are being prioritized to manage the number of standards and standards projects being worked in parallel. Additionally, NERC continued using the "Rapid Revision" approach to address a request for standard clarifications this quarter, with one project that completed its initial ballot with an approval just shy of the required two-thirds weighted segment approval. Lessons learned from this project have been discussed with the Standards Committee to continue to improve efficiency.

Technical Input Phase. Technical input from the industry is received through the formal and informal posting periods. Between each posting, the drafting team reviews the feedback received from stakeholders and makes revisions to the standard or standards. For a formal posting, drafting teams are also required to respond to each stakeholder comment. Thus, the technical input phase includes periods of time when standards and associated documents are posted for industry review – typically either for 30 or 45 days (although one of the projects balloted this quarter was posted for a 60-day period because of the large number of standards and supporting documents) – alternating with periods of time during which the drafting team is reviewing the input provided, revising the standards and associated documents, and preparing responses to the comments received. The technical input phase is essentially a highly-organized dialogue between the drafting team and other industry stakeholders.

For all of the standards projects balloted during the first quarter of 2012, this phase is ongoing. The average 2006-2010 baseline for the technical input phase was nine and a half months for revision projects; however, many of the projects in that baseline were addressing a single standard, while all but one of the projects balloted in the first quarter 2012 involve multiple standards (either revisions to multiple standards or consolidation of multiple standards into a single standard). The average length of the technical input phase for the projects balloted in the first quarter is over 31 months.

The technical input phase for both of the interpretations balloted in the first quarter 2012 was substantially longer than the 2006-2010 baseline of five months for interpretation projects. Both of the interpretations are CIP interpretations, and in both cases, the interpretation was initiated and then work was delayed for a period of time, contributing to the length of the technical input phase. The ongoing work on revisions to the CIP standards to respond to FERC Order No. 706 was given a higher priority and those revisions drew on the same technical experts required for drafting CIP interpretations. In addition, following the November 2009 NERC Board of Trustees meeting, when the Board issued guidance on further processing of interpretations, there was a delay in processing all interpretations as the Standards Committee

developed procedures to implement the Board guidance. In May of 2011, the Standards Committee appointed a standing CIP interpretation drafting team, separate from the drafting team that is assigned to revise the CIP standards, and there was a brief delay as the newly appointed drafting team reviewed the interpretations previously drafted and the substantial record of FERC Orders on CIP standards since the original interpretation was drafted. These delays resulted in the technical input phase taking, for one interpretation, just over 19 months and for the second, just under 24 months to complete, although active work in both cases was less than six of those months.

Board of Trustee Adoption. The period of time between ballot pool approval of a standard and Board of Trustees adoption of the standard varies depending on the number of other items that require action by the board. (The board has a fixed schedule of face-to-face meetings, and supplements its face-to-face meetings, as needed, to ensure prompt action when necessary to meet ERO obligations.) In the first quarter of 2012, two standards, one definition, and two interpretations were presented to the Board of Trustees for adoption. All of these completed balloting and were approved by stakeholders in the fourth quarter of 2011. The time between stakeholder approval and Board of Trustees adoption ranged from less than one month for the two standards to two months for the definition.

Filing with Regulatory Authorities.

During the first quarter of 2012, NERC submitted three filings to FERC for Standards projects that required NERC Board of Trustees approval. Once the Board of Trustees approves a standards project, NERC staff routinely prepares a draft filing, which is then circulated internally for comment. If substantive edits are required in response to comments received, then additional drafts may be circulated. After a consensus is reached on the draft, NERC finalizes the filing and compiles supporting exhibits for submittal to FERC.

Conclusion

The standing CIP Interpretation Drafting Team continued to prove an effective approach for efficiently processing interpretations, as two additional CIP interpretations were successfully balloted and are anticipated to go to the NERC Board of Trustees for approval in April 2012.

Although the analysis of project durations balloted in the first quarter indicates longer than the average baseline development times, each of the projects has made substantial improvements in the clarity of the standards through each iteration and several of the projects are near completion.

NERC and the Standards Committee are committed to continuing to explore opportunities for improving the efficiency and effectiveness of NERC's standards development processes.

Appendix A

Types of Standards Projects

For the purpose of analyzing results of its standards processes, NERC has identified four broad categories of standards projects.

The first category of projects is **Revisions to Existing Standards**. Revisions to existing standards are a significant and an ongoing part of NERC's standards development work, as NERC and industry work to address regulatory directives from FERC, modify standards to address changing technologies and operating conditions, and review standards in compliance with the five-year interval required to maintain ANSI accreditation. Between 2006 and 2010, the average time to complete revisions to existing standards was 30 months.

The second category is **New Standards**. There have been, and will continue to be, occasions where an entirely new standard or group of standards may be needed to address bulk power system reliability. The data collected from 2006 through 2010 show that these projects take longer, on average, than projects to revise existing standards. Between 2006 and 2010, the average time to complete projects to draft new standards was 42 months.

The third category is **Urgent Action/Expedited Projects**.[5] Urgent Action or Expedited Projects are shortened by reducing the time for certain process steps, or by allowing steps that would normally proceed serially to be conducted in parallel. By definition, these projects are expected to have a shorter development time, on average, than most standards projects. On average, the development time for Urgent Action and Expedited Projects from 2006 through 2010 was a little more than 7 months.

The final category is **Interpretations**. Entities that must comply with a reliability standard have the right to request a formal interpretation of a requirement included in a standard. Interpretation projects generally are narrower in scope than other standards projects, but like standards, interpretations are drafted by a drafting team and posted for industry review and ballot. From 2006 to 2010, NERC received a number of requests for interpretation that were absorbed into other projects because drafting teams could not prepare the interpretations without expanding the requirements of the approved standard. For those interpretation requests that were processed, the average time to complete interpretations and file them with regulatory authorities was about 10 months.

[5] Prior to September 2010, the NERC *Reliability Standards Development Procedure* incorporated a process used for developing a standard more quickly than the normal standard development process, which was referred to as the Urgent Action Process. FERC's approval of the *Standard Processes Manual* in September 2010 replaced the Urgent Action process with the Expedited Standards Development Process.

Appendix B

Phases in Standard Projects

NERC has identified five phases in the development of a Reliability Standard. Table 1 identifies those phases.

Table 1

Phases in NERC Reliability Standards Development Projects	
Phase	**Description**
1. SAR Development	from initial draft SAR to SC acceptance of a SAR for posting, including industry ballot of SAR if required
2. Initial Draft Development	from acceptance of SAR to posting of initial draft
3. Industry Technical Input/Consensus Building	from posting of initial draft(s) through ballot pool approval of a recirculation ballot
4. Board of Trustee (BOT) Approval	from ballot pool approval to BOT approval
5. Filing with Regulatory Authorities	from BOT approval to filing