

March 30, 2012

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

**NERC Standards Report, Status and Timetable for Addressing Regulatory Directives,
Docket No. RR12-_-_-**

Dear Ms. Bose,

The North American Electric Reliability Corporation (“NERC”) hereby submits the NERC Standards Report, Status and Timetable for Addressing Regulatory Directives in accordance with Section 321.6 of the NERC Rules of Procedure (“Rule 321”) that was approved by the Federal Energy Regulatory Commission (“FERC” or “Commission”) on March 17, 2011. This is the second annual report summarizing the progress made, and plans for addressing the standards-related directives received from the applicable Electric Reliability Organization (“ERO”) governmental authorities (“Directives Report”).

Since NERC was certified as the ERO, the Commission has issued 50 Orders containing approximately 721 directives related to NERC Reliability Standards. The majority of the directives, 435, were issued in 2007. Of the approximately 721 directives issued since 2007, NERC has initiated and completed projects associated with 58% of these directives and continues to make substantial progress in addressing the remaining directives focusing first on those that have the greatest impact on reliability. NERC responded to and filed with the Commission 118 directives in 2011 and plans to address an additional 156 directives in 2012.

Both the Commission and NERC have agreed on the need to establish priorities related to standards to ensure those issues most directly impacting reliability are addressed first. Therefore, standards-related directives are assigned to a standards development project, prioritized by the NERC Standards Committee, and submitted to the Commission in the annual *Reliability Standards Development Plan*.

As stated in last year’s Directives Report, while many directives are clearly stated, some are difficult to delineate or quantify. Therefore, NERC and FERC staffs initiated a coordinated effort in August 2010 to reach an agreed-upon “accounting” to identify and catalog the directives issued by the Commission. As of the date of this filing, this coordination project is approximately 90% complete.

The Directives Report is divided into three sections. The first section, “Status of Directives” summarizes the directives issued to NERC addressing standards development, along with the status of each directive and NERC’s progress in addressing that directive. The second section of

this report summarizes NERC's timeline for addressing those directives which have not been fully resolved with the Commission. The third section includes the following appendices to aid in understanding the specific regulatory directives received to date and the projects assigned to address those directives:

- Appendix A - Regulatory Orders Containing Standards-Related Directives
- Appendix B - All Issued Directives – Listed by Commission Order
- Appendix C - Outstanding Directives - Listed by Project

Please contact me if you have questions or need additional information.

/s/ Andrew M. Dressel

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Attorney

North American Electric Reliability Corporation

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

NERC Standards Report

Status and Timetable for Processing Regulatory
Directives

March 2012

RELIABILITY | ACCOUNTABILITY

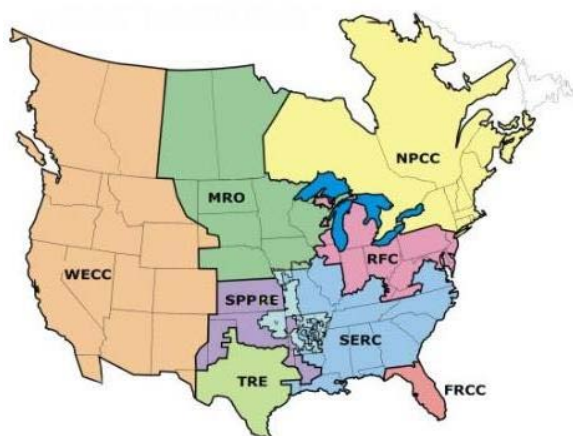


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NERC's Mission

The North American Electric Reliability Corporation's (NERC) mission is to ensure the reliability of the North American bulk power system. NERC is the electric reliability organization (ERO) certified by the Federal Energy Regulatory Commission (FERC or Commission) and governmental authorities in Canada to establish and enforce Reliability Standards for the bulk power system.¹ NERC develops and enforces Reliability Standards; assesses adequacy annually via a 10-year forecast and winter and summer forecasts; monitors the bulk power system; and educates, trains, and certifies industry personnel.

NERC assesses and reports on the reliability and adequacy of the North American bulk power system, which is divided into eight Regional areas, as shown on the map and table below. The users, owners, and operators of the bulk power system (BPS) within these areas account for virtually all the electricity supplied in the U.S., Canada, and a portion of Baja California Norte, México.



Note: The highlighted area between SPP RE and SERC denotes overlapping Regional area boundaries. For example, some load serving entities participate in one Region and their associated transmission owner/operators in another.

NERC Regional Entities

FRCC Florida Reliability Coordinating Council	SERC SERC Reliability Corporation
MRO Midwest Reliability Organization	SPP RE Southwest Power Pool Regional Entity
NPCC Northeast Power Coordinating Council	TRE Texas Reliability Entity
RFC ReliabilityFirst Corporation	WECC Western Electricity Coordinating Council

¹ As of June 18, 2007, FERC granted NERC the legal authority to enforce Reliability Standards with all U.S. users, owners, and operators of the bulk power system, and made compliance with those standards mandatory and enforceable. In Canada, NERC presently has memorandums of understanding in place with provincial authorities in Ontario, New Brunswick, Nova Scotia, Québec, and Saskatchewan, and with the Canadian National Energy Board. NERC standards are mandatory and enforceable in Ontario and New Brunswick as a matter of provincial law. NERC has an agreement with Manitoba Hydro making reliability standards mandatory for that entity, and Manitoba has recently adopted legislation setting out a framework for standards to become mandatory for users, owners, and operators in the province. In addition, NERC has been designated as the "electric reliability organization" under Alberta's Transportation Regulation, and certain reliability standards have been approved in that jurisdiction; others are pending. NERC and NPCC have been recognized as standards-setting bodies by the Régie de l'énergie of Québec, and Québec has the framework in place for reliability standards to become mandatory. Nova Scotia and British Columbia also have frameworks in place for reliability standards to become mandatory and enforceable. NERC is working with the other governmental authorities in Canada to achieve equivalent recognition.

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Introduction

NERC Reliability Standards are a portfolio of performance, risk, and competency-based mandatory reliability requirements that collectively provide a defense-in-depth structure for planning, operating and protecting the North American bulk power system. NERC's standards hold all users, owners, and operators of the bulk power system accountable for meeting specific reliability-related performance.

NERC staff works with the NERC Standards Committee, electric power industry experts, and applicable regulatory and governmental authorities in the United States and Canada in implementing the standards development projects identified in the Reliability Standard Development Plan, following the Standard Processes Manual.²

NERC's Reliability Standards are an essential tool in ensuring that the North American bulk power system is operated, maintained, and protected in a manner that supports all other services essential to health, safety, and financial security.

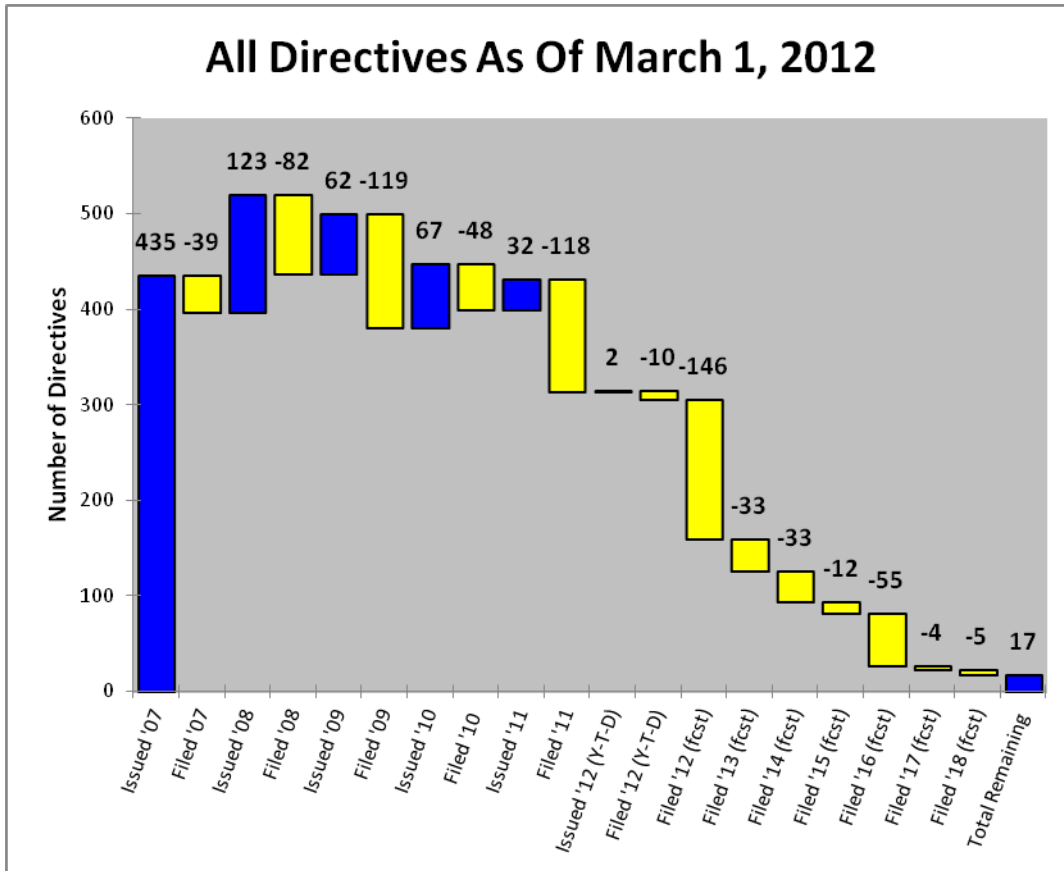
Executive Summary

Since the Commission certified NERC as the ERO for the United States in 2006, the Commission has issued 50 Orders containing approximately 721³ directives related to NERC Reliability Standards. As discussed at the February 8, 2011 FERC Technical Conference, both FERC and NERC agree there is a need to establish priorities related to standards development to ensure those issues with the highest potential impact to reliability are addressed first. As such, standards-related directives are typically associated with an applicable standards development project, the priority for implementation of which is established by the NERC Standards Committee and documented in the annual NERC *Reliability Standards Development Plan*.

Graph 1, below, illustrates that the majority of standards-related directives, 435, were issued in 2007, with an additional 123 issued in 2008, 62 issued in 2009, 67 issued in 2010, and 32 issued in 2011. Of the approximately 721 directives issued since 2007, NERC has addressed and filed with the Commission 58 percent of these directives and continues to make substantial progress in addressing the remaining directives focusing first on those that have the greatest impact on reliability. In 2011 alone, NERC addressed and filed with the Commission 118 directives and in 2012 plans to address and file with the Commission an additional 156 directives.

² NERC's Standard Processes Manual is available at: http://www.nerc.com/files/NERC_ROP_Effective_20120315.pdf.

³ The number of total directives (721) is up from 655 in last year's report primarily due to the identification of 44 additional directives identified in FERC Order 706 and 9 additional directives from the FERC Order on VRFs and VLS for CIP Standards issued January 20, 2011 which was inadvertently left out of last year's report. A complete comparison of the number of directives included in last year's report as compared to this year's report is contained in Appendix A.



Graph 1 - Waterfall Chart for all directives issued and filed since January 1, 2007

Background

This is the second report to the Commission summarizing the progress made, and plans for identifying and processing the standards-related directives received from applicable governmental authorities. To date, the Commission is the only governmental authority to issue any standards-related directives to NERC.

The Commission has the ability to issue directives to NERC and the industry for further development of standards where the Commission, in its judgment, feels further development is warranted. This report provides an assessment of the status of the ERO in fulfilling its duties related to the regulatory directives issued.

NERC processes directives in a manner consistent with its Rules of Procedure (ROP) (including Appendices 3A-*Standard Processes Manual* and 3C-*Procedure for Coordinating Reliability Standards*). Specifically, when a regulatory order or rule is issued, that order is reviewed and any directives within the order related to standards development are assigned a unique, five-digit reference number and cataloged in the NERC Issues Database (Issues Database). NERC then seeks to associate each directive with a specific standard (in some instances the directive is associated with “Standards Other” meaning that an activity outside of modifying a standard needs to take place to fully process the directive; for example, a change to the NERC ROP might

need to be implemented). Standards are then associated with a specific standards development project. Standards development projects are initiated and completed according to the NERC *Reliability Standards Development Plan* which is revised and filed with the Commission annually. The priority for initiating standards development projects is established by the NERC Standards Committee and is documented in the *Reliability Standards Development Plan*.

It is the responsibility of the drafting team assigned to a particular project to work with other industry stakeholders to respond to (either directly or “equally efficiently and effectively”) the directives associated with that specific standards development project. As a project progresses from Standard Authorization Request (SAR)⁴ development through standards development to NERC Board of Trustee adoption and filing with applicable regulatory authorities, it is the responsibility of the NERC Standards Development Coordinator or Advisor assigned to a particular project to maintain and update the status in the Issues Database of each directive associated with that project.

Once a standard has been approved by the NERC Board of Trustees and filed with the applicable regulatory authorities, the status of all the directives associated with the standards for that project that were processed by the drafting team for the project are marked “filed” in the Issues Database. If, after filing for regulatory approval, a regulatory authority declares that a directive has not been adequately resolved, the status of the directive will be returned to an “in drafting” status in the Issues Database and will be re-initiated the next time the standard is revised as part of another standards development project.

Section 321.6 of NERC’s ROP requires NERC to file a report with applicable governmental authorities on the status and timetable for addressing each outstanding regulatory directive to resolve a specific matter received from an applicable ERO governmental authority. This report is developed in fulfillment of the requirements of Section 321.6 of NERC’s ROP.

Organization of Report

This report is divided into three chapters, the first of which is this introductory chapter, followed by the second chapter which summarizes the standards-related directives issued by the Commission, and then the third chapter which summarizes NERC’s plans for processing directives that have not yet been filed with the Commission. In addition, the following appendices have been included to aid in understanding the specific regulatory directives received to date and the projects assigned to resolve those directives:

- **Appendix A**—Regulatory Orders Containing Standards-related Directives
- **Appendix B**—All Issued Directives—Listed by Commission Order
- **Appendix C**—Outstanding Directives—Listed by Project

⁴ A Standard Authorization Request is the form used to define the scope of a reliability-related standard project.

The foundation for the statistics provided in this report is contained in the Issues Database. The Issues Database is a dynamic, regularly-updated Access database that has evolved since the Commission's Order No. 693.

The understanding of what constitutes a directive within any particular regulatory order is, in some instances, subjective. As such, a project was initiated in August 2010 involving both NERC and FERC Office of Electric Reliability staff to resolve the "accounting" for directives by working together to identify and catalog the directives issued by the Commission. The purpose of the project is to reach agreement on a set of directives and then identify the precise nature of, and catalog the status of, each directive. As of the date of this report, the coordination project was approximately 90 percent complete. As such, the statistics contained in this report regarding the number of standards-related directives are preliminary and are likely to change.

Status of Directives

Directives Issued by the Commission

On July 20, 2006, the Commission issued an Order certifying NERC as the ERO in accordance with Section 215 of the Federal Power Act (FPA), enacted by the Energy Policy Act of 2005. Following approval by the Commission, NERC’s initial set of Reliability Standards became mandatory and effective within the United States on June 18, 2007.

The FPA and the Commission’s subsequent Orders allow the Commission to issue directives to the ERO to respond to the specific issues. Since January 1, 2007, the Commission has issued 50 Orders containing approximately 721 directives related to NERC Reliability Standards.

Appendix A to this report contains a chronological list of Commission Orders that contain standards-related directives. **Appendix B** contains the directives identified in the Issues Database associated with each of the Commission Orders identified in **Appendix A**.

Tabulated by year of issuance, the number of standards-related directives issued by the Commission since 2007 is approximately:

Year	Number of Directives Issued
2007	435
2008	123
2009	62
2010	67
2011	32
2012 (thru March 1)	2
Total	721

Directives Filed with the Commission

The *NERC Reliability Standards Development Plan* is the foundation for reliability standards development efforts. The plan serves as the management tool and blue print that guides, prioritizes, and coordinates revision or retirement of reliability standards and the development of new reliability standards for the immediate three-year time horizon.

In compliance with the *Standard Processes Manual*, the Standards Committee manages the NERC standards development process for the continent-wide reliability standards with the

support of NERC staff to achieve broad reliability goals for the industry. The Standards Committee protects the integrity and credibility of the standards development process.

It is the joint responsibility of NERC staff and the Standards Committee to ensure every regulatory directive related to standards development received by NERC is adequately addressed. Of the 721 directives issued since 2007, NERC has completed projects associated with approximately 416, or 58 percent, of the directives as follows:

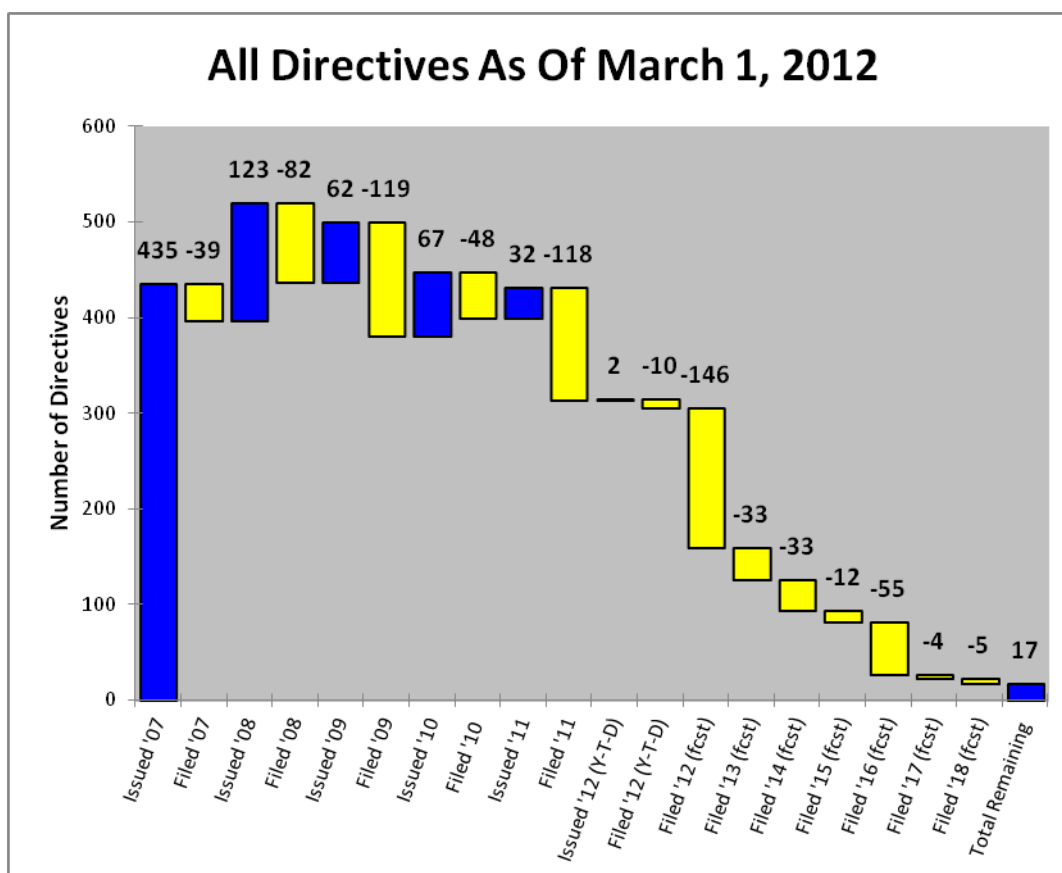
Year	Number of Directives Filed
2007	39
2008	82
2009	119
2010	48
2011	118
2012 (thru March 1)	10
Total	416

In addition, consistent with the *Reliability Standards Development Plan: 2012-2014*, NERC anticipates completing projects associated with approximately 212 additional directives by the end of 2014. **Appendix C** identifies the outstanding directives associated with each of the NERC standards development projects identified in the *Reliability Standards Development Plan: 2012-2014*. The projects identified in the *Reliability Standards Development Plan: 2012-2014* provide the basis for the forecast of the directives anticipated to be filed with the Commission over the next three years.

Year	Directives Forecast to be Filed
2012 (forecast- remainder of year)	146
2013 (forecast)	33
2014 (forecast)	33
Total	212

Summary of Issued and Filed Directives

Pictorially, the number of directives issued by the Commission by year and the number of directives filed with the Commission is captured in the “waterfall chart” below (Graph 2). As indicated in Graph 2, the number of directives issued by the Commission in any particular year causes the total number of outstanding directives to increase. Conversely, the number of directives filed with the Commission by NERC causes the total number of outstanding directives for a given year to decrease.



Graph 2 - Waterfall Chart for all directives issued and filed since January 1, 2007

In Graph 2, the blue bars/columns indicate the number of directives issued in each year, and the yellow bars/columns indicate the number of directives processed within the standards development process and filed with the Commission for approval each year. For example, as shown in Graph 2, the Commission issued Orders containing a total of 435 directives in 2007, 123 directives in 2008, and 62 directives in 2009. NERC submitted new or revised standards to the Commission responding to 39 directives in 2007, 82 directives in 2008, and 119 directives in 2009. As of March 1, 2012, NERC has completed projects and filed new or revised standards with the Commission that address 416 (58 percent) of the 721 standards-related directives issued by the Commission leaving 305 directives to be addressed in current or future projects.

Timeline for Processing Outstanding Directives

One of NERC's core responsibilities is to ensure the reliability of the BPS by developing effective reliability standards that are clear, consistent and technically sound. All BPS owners, operators, and users must comply with these standards, which define the requirements for planning, operating, and protecting the North American electrical grid, so that widespread cascading outages, uncontrolled separations, and blackouts do not occur. NERC's standard development's success depends on active participation from the industry on drafting teams, during comment periods and in ballot pools. It is the users, owners and operators of the BPS who both develop NERC's mandatory Reliability Standards and implement them to ensure reliability.

NERC is continually working to improve its standard development process and the quality and technical soundness of the standards it produces. NERC continues to work to respond to all the regulatory directives received in a prioritized methodology giving highest priority to those directives that have the largest potential impact on reliability.

Standard Development Project Prioritization

The *Reliability Standard Development Procedure* which was in effect at the time NERC was certified as the ERO required the Standards Committee to initiate almost all projects as SARs were received. This old procedure led to too many projects in development by mid-2010. Simultaneously initiating large number of projects into development tended to extend all project timelines unnecessarily and overwhelmed those that actively participated in the NERC standards development process. A new *Standard Processes Manual* was approved for use in September 2010, replacing the *Reliability Standard Development Procedure* and giving the Standards Committee the authority to determine when to initiate a new project.

Shortly after the new *Standard Processes Manual* was approved, the Standards Committee developed and implemented a methodology to prioritize the standards development project load and focus the available industry resources on a smaller set of high-priority projects emphasizing those projects which have the highest potential impact on reliability. The Standards Committee and NERC staff have jointly worked to develop the prioritization tool, soliciting feedback from the industry, and refining the tool based on that feedback. The prioritization tool was then submitted to the Board of Trustees for review and endorsement after stakeholder comments indicated support for the tool. Early prioritization experimentation using preliminary versions of the tool proved successful. On February 17, 2011, NERC's Board of Trustees endorsed the standards project prioritization tool.

The prioritization criteria embedded in the tool balances between regulatory deadlines, reliability gaps, and known deficiencies of existing standards including the need for additional clarity. Moreover, the prioritization tool balances consideration of all the prioritization criteria, resulting in rational decisions about the use of NERC and industry resources.

Priority Projects

The projects priorities identified in the *Reliability Standards Development Plan: 2012-2014* were used to develop the forecast for filing outstanding directives. The list of projects, the year each project is anticipated to be completed, and the approximate number of directives associated with the standards to be revised in conjunction with each of these projects are summarized in Table 4 below:

Project	Estimated Completion Date (Year of Filing)	Number of Directives
Project 2006-06 Reliability Coordination	2012	14
Project 2007-03 Real-time Transmission Operations	2012	29
Project 2007-09 Generator Verification	2012	6
Project 2007-12 Frequency Response	2012	2
Project 2007-17 Protection System Maintenance & Testing	2012	5
Project 2008-06 Cyber Security-Order 706	2012	58
Project 2009-01 Disturbance and Sabotage Reporting	2012	12
Project 2010-05.1 Phase 1 of Protection Systems: Misoperations	2012	2
Project 2007-02 Operating Personnel Communications Protocols	2013	6
Project 2007-06 System Protection Coordination	2013	1
Project 2009-02 Real-time Reliability Monitoring and Analysis	2013	2
Project 2009-03 Emergency Operations	2013	8

Project 2010-14.1 Phase 1 of Balancing Authority Reliability-based Controls: Reserves	2013	8
Project 2010-14.2 Phase 2 of Balancing Authority Reliability-based Control: Time Error, AGC, and Inadvertent	2015	10
Project 2008-01 Voltage and Reactive Planning and Control	2014	10
Project 2008-02 Undervoltage Load Shedding	2014	2
Project 2008-12 Coordinate Interchange Standards	2014	10
Project 2010-01 Support Personnel Training	2014	7
Project 2010-05.2 Phase 2 of Protection Systems: SPS and RAS	2014	3
Project 2010-13.2 Phase 2 of Relay Loadability Order 733: Generation	2014	1
Project 2007-11 Disturbance Monitoring	2015	1
Project 2009-07 Reliability of Protection Systems	2015	1
Project 2010-03 Modeling Data	2016	17
Project 2010-04 Demand Data	2016	15
Project 2010-13.3 Phase 3 of Relay Loadability Order 733: Stable Power Swings	2016	3
Project 2012-05 ATC Revisions-Order 729	2016	20
Project 2006-06.2 Phase 2 of Reliability Coordination: IRO-003	2017	2
Project 2010-02 Connecting New Facilities to the Grid	2017	2

Project 2012-08 Glossary Updates	2018	5
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Remaining Outstanding Directives

In addition to the directives identified in Table 4 for resolution through the standards development process, there are 43 additional outstanding directives which will be addressed either by internal NERC resources, NERC committees, or Regional Entities:

Table 5: Remaining Outstanding Directives	
Resource	Number of Directives
Reliability Assessment and Performance Analysis	18
NERC Standards	12
NERC Regional Standards Development	6
NERC Standing Committees	3
Miscellaneous	4
Total	43

Appendix C identifies each of the directives associated with the standards development projects summarized above in Table 4 as well as the remaining 43 directives summarized above in Table 5.

NERC's intent is to continually respond to the regulatory directives received in a prompt and timely manner, taking into account all outstanding standards development activities and their potential impact on reliability. NERC staff will continually coordinate with the NERC Standards Committee to give highest priority to those issues with the largest potential improvement to reliability.

Appendix A-Regulatory Orders Containing Standards-Related Directives

Regulatory Orders Containing Standards-related Directives			
Order	Date Issued	2011 Report Number of Directives ⁵	2012 Report Number of Directives
<u>Order on Compliance Filing (Issued 1/18/07)</u> Docket No. RR06-1-003	01.18.2007	16	16
<u>Preventing Undue Discrimination and Preference in Transmission Service</u> Docket Nos. RM05-17-000 and RM05-25-000; Order No. 890	02.16.2007	29	29
<u>Mandatory Reliability Standards for the Bulk-Power System</u> Docket No. RM06-16-000; Order No. 693	03.16.2007	335	344
<u>Order on Violation Risk Factors (Issued 5/18/07)</u> Docket Nos. RR07-9-000, RR07-10-000	05.18.2007	4	5
<u>Order on Compliance Filing Regarding NERC Rules of Procedure</u> Order on Compliance Filing Docket No. RR06-1-007	06.07.2007	3	3
<u>Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications</u> Docket No. RR07-11-000	06.08.2007	14	14
<u>Mandatory Reliability Standards for the Bulk-Power System (Issued 7/19/07)</u> Order 693-A, Order on Rehearing-Docket No. RM06-16-001	07.19.2007	2	0
<u>Order on Compliance Filing (Issued 11/16/07)</u> Order on Compliance Filing pursuant to the	11.16.2007	12	12

⁵ NERC staff continues to coordinate identification of directives with FERC staff from the Office of Electric Reliability. As a result of this coordination effort a number of changes were made to the NERC Issues Database. The impacts of these changes are illustrated in the two rightmost columns of this table.

Commission's May 2007 Order on Violation Risk Factors. Docket Nos. RR07-9-003 and RR07-10-003			
<u>Facilities Design, Connections and Maintenance Reliability Standards (Issued 12/27/07)</u> Order on approving the Facilities Design, Connections and Maintenance Reliability Standards which are the planning and operating reliability standards. Docket No. RM07-3-000; Order No. 705	12.27.2007	12	12
<u>Mandatory Reliability Standards for Critical Infrastructure Protection (Issued 1/18/08)</u> Order approving the eight Critical Infrastructure Protection (CIP) Reliability Standards submitted by NERC on August 28, 2006. Docket Nos. RM06-22-000; Order No. 706	01.18.2008	59	103
<u>Order 706-A- Order Denying Rehearing and Granting Clarification</u> The Commission issues Final Rule approving eight Critical Infrastructure Protection (CIP) Standards. Docket No. RM06-22-001 (Order 706-A)	05.16.2008	2	2
<u>Order on Violation Severity Levels Proposed by the Electric Reliability Organization</u> The Commission approves the VSL assignments filed by NERC for the 83 Commission-approved Reliability Standards. The Commission also directs NERC to file modifications to VSLs relevant to five Reliability Standards. Docket No. RR08-4-000	06.19.2008	4	4
<u>Order No. 713 - Modification of INT and TLR Standards; and ERO Interpretation of Requirements of Four Standards</u> The Commission approves five of six modified Reliability Standards submitted by NERC that pertain to interchange scheduling and coordination. The Commission directs NERC to submit a filing that provides and explanation	07.21.2008	2	3

regarding one aspect of the TLR procedure. <i>Docket No. RM08-7-000</i>			
<u>Order No. 716 - NUC Standard</u> Commission approves the Nuclear Plant Interface Coordination Reliability Standard NERC submitted for approval on November 19, 2007 and supplemented on December 11, 2007. <i>Docket No. RM08-3-000</i>	10.16.2008	11	9
<u>Order on Rehearing and Clarification and Accepting Compliance Filing in response to VSL Order</u> The Commission grants in part and denies in part rehearing and clarification of the VSL Order. The Commission accepts NERC’s July 21, 2008 Compliance Filing revising certain VSLs submitted pursuant to the VSL Order. The Commission directs NERC to submit a further compliance filing that makes specific revisions. <i>Docket Nos. RR08-4-001 and RR08-4-002</i>	11.20.2008	2	2
<u>Order on CIP VRFs Compliance Filing</u> The Commission issued an Order approving 12 revised VRFs and approving 9 new VRFs. In addition, the Commission requires revisions to four of the new VRFs. <i>Docket Nos. RM06-22-002 and RM06-22-003</i>	01.27.2009	1	1
<u>Mandatory Reliability Standards for Critical Infrastructure Protection</u> Docket No. RM06-22-000; Order No. 706-B	03.19.2009	3	1
<u>Modification of Interchange and TLR Reliability Standards;</u> ERO Interpretation of Specific Requirements of Four Reliability Standards <i>Docket Nos. RM08-7-000 and RM08-7-001;</i> <i>Order No. 713-A</i>	03.19.2009	2	2
<u>Version Two Facilities Design, Connections and Maintenance Reliability Standards</u> <i>Docket No. RM08-11-000; Order No. 722</i>	03.20.2009	14	16
<u>Order No. 723 Approving WECC Regional Reliability Standard BAL-004-WECC-01</u>	05.21.2009	5	5

<p>The Commission approved the regional Reliability Standard BAL-004-WECC-01 (Automatic Time Error Correction) and directed WECC to develop several modifications to the regional Reliability Standard. <i>Docket No. RM08-12-000; Order No. 723.</i></p>			
<p><u>ERO Interpretations of Specific Requirements of BAL-003-0 and VAR- 001-1 Reliability Standards</u> The Commission approves the Interpretation of BAL-003-0 R2 and R5. The Commission remands to the ERO the proposed interpretation of VAR-001-1, Requirement R4 and directs the ERO to revise the interpretation. <i>Docket No. RM08-16-000</i></p>	05.21.2009	4	1
<p><u>Order Approving Version 2 of CIP Cyber Security Standards</u> FERC approves the revised Version 2 CIP Reliability Standards to become effective on April 1, 2010. <i>Docket No. RD09-7-000</i></p>	09.30.2009	9	9
<p><u>Order No. 890D-Preventing Undue Discrimination and Preference in Transmission Service</u> FERC affirms its basic determinations in Order Nos. 890, 890-A, 890-B, and 890-C, granting clarification regarding certain revisions to its regulations and the pro forma open-access transmission tariff, or OATT, adopted in Order Nos. 888 and 889 to ensure that transmission services are provided on a basis that is just, reasonable, and not unduly discriminatory. <i>Docket Nos. RM05-17-005 and RM05-25-005; Order No. 890-D</i></p>	11.19.2009	1	0
<p><u>Order 729-Mandatory Reliability Standards for the Calc. of ATC, CBM, TRM, TTC and Existing Transmission Commitments for the BPS</u> The Commission approves six Modeling, Data, and Analysis Reliability Standards submitted to the Commission for approval by the NERC. <i>Docket Nos. RM08-19-000, RM08-19-001,</i></p>	11.24.2009	22	22

<i>RM09-5-000, RM06-16-005</i>			
<p><u>Order Addressing NERC's CIP Implementation Plan and Requiring Compliance Filing</u> FERC issues an order addressing NERC's CIP Implementation Plan. <i>Docket No. RM06-22-010</i></p>	12.17.2009	5	5
<p><u>Order Approving TFE Procedures Amendment to NERC's ROP</u> FERC approves NERC's petition to amend NERC's ROP, specifically by adding the Technical Feasibility Exceptions (TFE) to NERC CIP standards and direct NERC to submit a compliance filing. <i>Docket No. RR10-1-000</i></p>	01.21.2010	12	12
<p><u>Order 733-PRC-023-1</u> The Commission issued a Final Order approving Reliability Standard PRC-023-1. <i>Docket No. RM08-13-000</i></p>	03.18.2010	28	31
<p><u>Order Setting Deadline for Compliance Regarding BAL-003-0</u> The Commission directs NERC to submit a modification to BAL-003-0 that is responsive to the Commission's directive in Order No. 693 within six months from the date of issuance of this order. <i>Docket No. RM06-16-010</i></p>	03.18.2010	1	1
<p><u>Order Addressing Compliance Filing and Approving Implementation Plan</u> FERC accepts NERC's compliance filing and approves the Implementation Plan for nuclear power plant generator owners' and operators' compliance with Version 1 of the CIP Standards to become effective on the date of this order. <i>Docket No. RM06-22-011</i></p>	03.18.2010	3	2
<p><u>Order Addressing VSL Assignments to CIP Standards</u> The Commission approves the proposed Violation Severity Levels (VSL) assignments and establishes additional guidance for determining appropriate VSLs in the specific context of cyber security Requirements. <i>Docket No.</i></p>	03.18.2010	5	5

<i>RM06-22-008</i>			
<p><u>Order Approving Interpretation of Reliability Standard CIP-007-2</u></p> <p>The Commission approves the interpretation of the Commission-approved CIP Reliability Standard, CIP-007-2—Systems Security Management, Requirement R2. <i>Docket No. RD10-3-000</i></p>	03.18.2010	1	0
<p><u>Order Directing NERC to Propose Modification of Electric Reliability Organization Rules of Procedure</u></p> <p>FERC directs NERC to submit a filing containing specific proposed modifications to the NERC Standards Development Process within 90 days of this Order and to fully comply with FERC's previous directive to develop modifications to Reliability Standard FAC-008-1. <i>Docket No. RR09-6-000</i></p>	03.18.2010	4	2
<p><u>Order Setting Deadline for Compliance Regarding TPL-002-0</u></p> <p>FERC issues an Order setting a deadline of June 30, 2010 for NERC's compliance with Order 693 to modify Reliability Standard TPL-002-0. <i>Docket No. RM06-16-009</i></p>	03.18.2010	2	1
<p><u>Order No. 729-A-Mandatory Reliability Standards for the Calculation of ATC, CBM, TRM, TTC and Existing Transmission Commitments</u></p> <p>The Commission issues an Order that grants several requests for clarification of Order No. 729, which approved and directed modification of six Modeling, Data, and Analysis Reliability Standards; clarifies the implementation timeline for these Reliability Standards; and directs certain modifications. <i>Docket No. RM08-19-002; Order No. 729-A</i></p>	05.05.2010	1	0
<p><u>Order Granting Rehearing for Further Consideration and Scheduling Technical Conference</u></p> <p>The Commission grants rehearing for the</p>	05.13.2010	3	1

limited purpose of further consideration, and timely-filed requests for rehearing will not be deemed denied by operation of law and directs Commission staff to convene a technical conference. <i>Docket No. RM06-16-011</i>			
<u>Order on NERC Three-Year Performance Assessment</u> FERC accepts the performance assessment of NERC as the ERO, and the Regional Entities, and finds that they continue to satisfy the statutory and regulatory criteria for certification. In addition, FERC directs NERC to submit an informational filing addressing specific matters/concerns and take additional action as discussed in this order. <i>Docket Nos. RR09-7-000, AD10-14-000</i>	09.16.2010	3	2
<u>Order No. 742-Final Rule on System Personnel Reliability Standards</u> The Commission issues a final rule approving two Personnel Performance, Training and Qualifications (PER) Reliability Standards, PER-004-2 (Reliability Coordination–Staffing) and PER-005-1 (System Personnel Training). <i>Docket No. RM09-25-000; Order No. 742</i>	11.18.2010	2	4
<u>Order No. 743-Final Rule on Revision to the ERO Definition of Bulk Electric System</u> FERC issues a Final Rule in which it adopts, with modifications, the proposal outlined in its March 18, 2010 Notice of Proposed Rulemaking to require the Electric Reliability Organization (ERO) to revise its definition of the term “bulk electric system.” <i>Docket No. RM09-18-000; Order No. 743</i>	11.18.2010	5	5
<u>Letter Order Approving VSL for Version Two Facilities Design, Connection, and Maintenance Reliability Standards</u> FERC issues an order approving the violation severity levels assigned to FAC-014-2 Requirements R1, R3, and R4 and orders a compliance filing to be made by January 6, 2010 with typographical corrections to	12.07.2010	0	1

violation severity levels for R2. <i>Docket Nos. RM08-11-002, RM08-11-003</i>			
<u>Order Approving Revisions to Two Reliability Standards and Directing a Compliance Filing</u> FERC issues an Order Approving Revisions to Two Reliability Standards and Directing a Compliance Filing concerning INT-003-3 and BAL-006-2. <i>Docket No. RD10-04-000</i>	01.06.2011	1	1
<u>Order on VRFs and VLS for CIP Standards</u> FERC issues an order in which it approves the proposed Version 2 and Version 3 VRFs and VSLs, subject to modifications discussed in the order. <i>Docket Nos. RD10-6-000 and RD09-7-002</i>	01.20.2011	0	9
<u>Order No. 749-Final Rule Approving Three System Restoration Reliability Standards EOP-001-1, EOP-005-2, EOP-006-2, and Definition</u> FERC issues an order approving EOP-001-1 (Emergency Operations Planning), EOP-005-2 (System Restoration from Blackstart Resources), and EOP-006-2 (System Restoration Coordination) as well as the definition of the term “Blackstart Resource” submitted to the Commission for approval. <i>Docket No. RM10-16-000</i>	03.17.2011	3	2
<u>Order No. 747-Final Rule Approving Planning Resource Adequacy Assessment Standard BAL-502-RFC-02</u> FERC approves regional Reliability Standard, BAL-502-RFC-02 (Planning Resource Adequacy Analysis, Assessment and Documentation), developed by RFC. The Commission also approves four regional reliability definitions related to the approved regional Reliability Standard and the violation risk factors and violation severity levels assigned to the BAL-502-RFC-02 Requirements. <i>Docket No. RM10-10-000; Order No. 747</i>	03.17.2011	2	2
<u>Order No. 748-Final Rule Approving Interconnection Reliability Operating Limits Standards</u>	03.17.2011	2	2

<p>The Commission issues a final rule approving NERC’s proposed IRO-008-1, IRO-009-1, and IRO-010-1a and proposed revisions to Reliability Standards EOP-001-1, IRO-002-2, IRO-004-2, IRO-005-3, TOP- 003-1, TOP-005-2, and TOP-006-2, which remove requirements for the reliability coordinator to monitor and analyze system operating limits (SOL)⁴ other than IROLs. <i>Docket No. RM10-15-000; Order No. 748</i></p>			
<p><u>Order No. 751-Final Rule on Version One Regional Reliability Standards for Facilities Design, Connections, and Maintenance; Protection and Control; and Voltage and Reactive</u> FERC issues a Final Rule in which it approves four revised regional Reliability Standards developed by the WECC and approved by NERC. These regional Reliability Standards have been designated by the Western Electricity Coordinating Council as FAC-501-WECC-1– Transmission Maintenance, PRC-004-WECC-1– Protection System and Remedial Action Scheme Misoperation, VAR-002-WECC-1– Automatic Voltage Regulators, and VAR-501-WECC-1–Power System Stabilizer. <i>Docket No. RM09-9-000; Order No. 751</i></p>	<p>04.21.2011</p>	<p>7</p>	<p>7</p>
<p><u>Order No. 752-Final Rule on TOP-007-WECC-1</u> FERC issues a Final Rule in which it approves regional Reliability Standard TOP-007-WECC-1 (System Operating Limits) developed by WECC and submitted to the Commission for approval by NERC. The Commission also approves the retirement of WECC regional Reliability Standard TOP-STD-007-0, which is replaced by the regional Reliability Standard approved in this Final Rule. <i>Docket No. RM09-14-000; Order No. 752.</i></p>	<p>04.21.2011</p>	<p>4</p>	<p>4</p>
<p><u>Order No. 754-Order Approving Interpretation of TPL-002-0 Requirement R1.3.10</u> FERC issues an order in which it approves an interpretation of Reliability Standard TPL-002-0</p>	<p>09.15.2011</p>	<p>0</p>	<p>1</p>

Requirement R1.3.10. <i>Docket No. RM10-6-000; Order No. 754</i>			
<u>Order Approving Reliability Standard FAC-008-3</u> FERC issues an order approving Reliability Standard FAC-008-3 (Facility Ratings), the associated Violation Risk Factors (VRF) and Violation Severity Levels (VSL), and retirement of Reliability Standards FAC-008-1 (Facility Ratings Methodology) and FAC-009-1 (Establish and Communicate Facility Ratings). <i>Docket No. RD11-10-000</i>	11.17.2011	0	1
<u>Order Approving Reliability Standard FAC-013-2</u> FERC issues an Order Approving Reliability Standard FAC-013-2—Assessment of Transfer Capability for the Near-term Transmission Planning Horizon that NERC filed for approval on January 28, 2011. <i>RD11-3-000</i>	11.17.2011	0	3
<u>Order No. 758—Order Approving Interpretation of Protection System Reliability Standard PRC-005-1</u> FERC issues a Final Rule in which it approves an interpretation to Requirement R1 of Commission-approved Reliability Standard PRC-005-1. FERC also directs NERC to develop modifications to the PRC-005-1 Reliability Standard through its Reliability Standards development process to address gaps in the Protection System maintenance and testing standard that were highlighted by the proposed interpretation. <i>Docket No. RM10-5-000; Order No. 758</i>	02.03.2012	0	2

Appendix B–All Issued Directives–Listed by Commission Order

FERC-Order on Compliance Filing-Docket No. RR06-1-003

Issued 1/18/2007

DIRECTIVE: S- Ref 10606 - submit an additional compliance filing within 60 days of the issuance of this order, and a quarterly report on the balloting results of its Reliability Standards Development Process.

Para 1

"submit an additional compliance filing within 60 days of the issuance of this order, and a quarterly report on the balloting results of its Reliability Standards Development Process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10608 - The ERO must address the issue of whether an adequate level of reliability can be defined to partly or wholly apply to all Reliability Standards, whether it can be defined for certain sets of Reliability Standards (BAL, FAC etc.), or whether, in some in

Para 16

"The ERO must address the issue of whether an adequate level of reliability can be defined to partly or wholly apply to all Reliability Standards, whether it can be defined for certain sets of Reliability Standards (BAL, FAC etc.), or whether, in some instances, it must be tailored to each individual Reliability Standard."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10609 - The ERO must consider opportunities to develop and apply metrics that can form the basis for broadly defining an adequate level of reliability, such as the creation of a precisely defined set of system operating states.

Para 16

"The ERO must consider opportunities to develop and apply metrics that can form the basis for broadly defining an adequate level of reliability, such as the creation of a precisely defined set of system operating states."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.

Status: Filed Delivery: 2007

Solution Details: NERC has developed 18 metrics that measure the characteristics of an adequate level of reliability⁶ and conducted annual metric assessments since 2009. The yearly performance analysis reports⁷ and quarterly trend updates⁸ are available through NERC public website. In 2011, the newly formed Adequate Level of Reliability Task Force⁹ created an initial set of system operating states¹⁰ and is in the process of refining the definition of adequate level of reliability. Issues database unclear

⁶ http://www.nerc.com/filez/Approved_Metrics.html

⁷ <http://www.nerc.com/page.php?cid=4|37>

⁸ <http://www.nerc.com/page.php?cid=4|331>

⁹ <http://www.nerc.com/filez/alrtf.html>

¹⁰ http://www.nerc.com/docs/standards/ALR_Definition.pdf

DIRECTIVE: S- Ref 10607 - direct the ERO to develop a work plan to propose a continuing improvement process to consider adequate level of reliability when developing new or modified Reliability Standards.

Para 16

"direct the ERO to develop a work plan to propose a continuing improvement process to consider adequate level of reliability when developing new or modified Reliability Standards."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.

Status: Filed Delivery: 2007

Solution Details:

Issues database unclear

DIRECTIVE: S- Ref 10610 - report to us quarterly for the next three years its analysis of the voting results, including trends and patterns that may signal a need for improvement in the voting process, such as the balloting down of a Reliability Standard and subsequent ballot ap

Para 18

"report to us quarterly for the next three years its analysis of the voting results, including trends and patterns that may signal a need for improvement in the voting process, such as the balloting down of a Reliability Standard and subsequent ballot approval of a less stringent version of the Reliability Standard."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10612 - directed to revise the emergency action process to make it clear that, when the Commission determines that extraordinary circumstances exist, NERC must invoke its emergency action process without NERC board discretion to overrule that determination.

Para 28

"directed to revise the emergency action process to make it clear that, when the Commission determines that extraordinary circumstances exist, NERC must invoke its emergency action process without NERC board discretion to overrule that determination."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.

Status: Filed Delivery: 2007

Solution Details:

Issues database unclear

DIRECTIVE: S- Ref 10613 - directs NERC to modify both the regular and expedited Reliability Standard development procedures to explicitly provide for timely adherence to a Commission-imposed deadline.

Para 28

"directs NERC to modify both the regular and expedited Reliability Standard development procedures to explicitly provide for timely adherence to a Commission-imposed deadline."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.

Status: Filed Delivery: 2007

Solution Details:

Issues database unclear

DIRECTIVE: S- Ref 10611 - direct that NERC revise the proposed expedited urgent action process to (1) provide for the expedited development of a Reliability Standard in extraordinary circumstances without the limitation on when it can be invoked by the Commission and (2) incorpo

Para 28

"direct that NERC revise the proposed expedited urgent action process to (1) provide for the expedited development of a Reliability Standard in extraordinary circumstances without the limitation on when it can be invoked by the Commission and (2) incorporate the ability to adjust the timeliness of the process to meet a Commission-imposed deadline and still allow for due process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2007
Solution Details:
Resolved

DIRECTIVE: S- Ref 10616 - direct NERC to revise its Reliability Standard development procedure to clearly indicate how it will initiate the development of a new or revised Reliability Standard in response to a Commission directive separate from the SAR process.

Para 29

"direct NERC to revise its Reliability Standard development procedure to clearly indicate how it will initiate the development of a new or revised Reliability Standard in response to a Commission directive separate from the SAR process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.
Status: Filed Delivery: 2007
Solution Details:
Issues database unclear

DIRECTIVE: S- Ref 10618 - direct the ERO to monitor the length of time taken to develop a new or modified Reliability Standard from the submission of a SAR through approval of a Reliability Standard by the ERO board.

Para 31

"direct the ERO to monitor the length of time taken to develop a new or modified Reliability Standard from the submission of a SAR through approval of a Reliability Standard by the ERO board."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2007
Solution Details:
Resolved

DIRECTIVE: S- Ref 10619 - submit a report as part of its performance assessment at the three year anniversary of the certification of the ERO that identifies how long each new Reliability Standard or modification under development has taken up to that point. The report should al

Para 31

"submit a report as part of its performance assessment at the three year anniversary of the certification of the ERO that identifies how long each new Reliability Standard or modification under development has taken up to that point. The report should also include an analysis of the reasons for delay and any patterns of delay in developing timely Reliability Standards or modifications to Reliability Standards. The ERO should address the Commissions expressed concerns and specific orders for new or modified Reliability Standards, and compare progress with the EROs Reliability Standards development work plan. The ERO should discuss in this report the effectiveness of the current Reliability Standards development process with regard to the timely development of Reliability Standards, and, if problems are uncovered, identify possible resolutions including possible changes to its process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10620 - directs NERC to modify section 306 so that the compliance and certification committee is responsible for monitoring NERCs compliance regarding Reliability Standards development.

Para 63

"directs NERC to modify section 306 so that the compliance and certification committee is responsible for monitoring NERCs compliance regarding Reliability Standards development."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.

Status: Filed Delivery: 2007

Solution Details:

Issues database unclear

DIRECTIVE: S- Ref 10621 - direct that NERC modify its Rules of Procedure to provide that the ERO will comply with each Reliability Standard that identifies the ERO as an applicable entity, identify the component of NERC that will monitor NERCs compliance with such standards, and

Para 65

"direct that NERC modify its Rules of Procedure to provide that the ERO will comply with each Reliability Standard that identifies the ERO as an applicable entity, identify the component of NERC that will monitor NERCs compliance with such standards, and state that non-compliance would constitute a violation of NERCs Rules of Procedure and subject NERC to any consequences of such a violation."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10622 - direct NERC to develop the Violation Risk Factors through the procedure described in section 1400 of its Rules of Procedure.

Para 91

"direct NERC to develop the Violation Risk Factors through the procedure described in section 1400 of its Rules of Procedure."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Generic clean-up item, based on review of our filing.

Status: Filed Delivery: 2007

Solution Details:

Issues database unclear

DIRECTIVE: S- Ref 10624 - directed to file with the Commission quarterly reports for the next three years, within 30 days of the end of each quarterly period, beginning with the first quarter of 2007, on voting results in the Reliability Standard development process, as discusse

Para C

"directed to file with the Commission quarterly reports for the next three years, within 30 days of the end of each quarterly period, beginning with the first quarter of 2007, on voting results in the Reliability Standard development process, as discussed herein."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10605 - directed to include in its first performance assessment three years from the date of certification a report analyzing the length of time taken to develop a new or modified Reliability Standard from the submission of a SAR through approval of a Reliabili

Para D

"directed to include in its first performance assessment three years from the date of certification a report analyzing the length of time taken to develop a new or modified Reliability Standard from the submission of a SAR through approval of a Reliability Standard by the ERO board, as discussed herein."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

FERC-Preventing Undue Discrimination and Preference in Transmission Service (Order 890)

Issued 2/16/2007

DIRECTIVE: S- Ref 10187 - As TDU Systems note, there is neither a definition of AFC in NERCs Glossary nor an existing reliability standard that discusses the AFC method. In order to achieve consistency in each component of the ATC calculation (discussed below), we d

Para 211

"As TDU Systems note, there is neither a definition of AFC in NERCs Glossary nor an existing reliability standard that discusses the AFC method. In order to achieve consistency in each component of the ATC calculation (discussed below), we direct public utilities, working through NERC, to develop an AFC definition and requirements used to identify a particular set of transmission facilities as a flowgate. However, we remind transmission providers that our regulations require the posting of ATC values associated with a particular path, not AFC values associated with a flowgate. Transmission providers using an AFC methodology must therefore convert flowgate (AFC) values into path (ATC) values for OASIS posting. In order to have consistent posting of the ATC, TTC, CBM, and TRM values on OASIS, we direct public utilities, working through NERC, to develop in the MOD-001 standard a rule to convert AFC into ATC values to be used by transmission providers that currently use the flowgate methodology."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-030

Status: Filed Delivery: 2008

Solution Details:

MOD-030

DIRECTIVE: S- Ref 10188 - The Commission also believes that further clarification is necessary regarding the calculation algorithms for firm and non-firm ATC.150 Currently, NERC has no standards for calculating non-firm ATC. We find that the same potential for discr

Para 212

"The Commission also believes that further clarification is necessary regarding the calculation algorithms for firm and non-firm ATC.150 Currently, NERC has no standards for calculating non-firm ATC. We find that the same potential for discrimination exists for non-firm transmission service as for firm service and that greater uniformity in both firm and non-firm ATC calculations will substantially reduce the remaining potential for undue discrimination. Therefore, we direct public utilities, working through NERC, to modify related ATC standards by implementing the following principles for firm and non-firm ATC calculations: (1) for firm ATC calculations, the transmission provider shall account only for firm commitments; and (2) for non-firm ATC calculations, the transmission provider shall account for both firm and non-firm commitments, postbacks of redirected services, unscheduled service, and counterflows. We understand that these principles are currently followed by most transmission providers and believe they should be clearly set forth in the ATC-related reliability standards. As described below, each transmission providers Attachment C must include a detailed formula for both firm and non-firm ATC, consistent with the modified ATC-related reliability standards."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008
Solution Details:
MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10189 - With respect to a timeline for completion, the Commission concurs with NERC that a significant amount of work remains to be done on ATC-related reliability standards development. We also agree with the many commenters who state that the NOP

Para 223

"With respect to a timeline for completion, the Commission concurs with NERC that a significant amount of work remains to be done on ATC-related reliability standards development. We also agree with the many commenters who state that the NOPRs proposed six-month timeline is too short for such a complex assignment. Although NERC projects that it may be able to complete the process by the summer of 2007 (which is approximately six months from the date of the Final Rule), we believe

NERC should have additional flexibility with respect to its timeline. Accordingly, we direct public utilities, working through NERC, to modify the ATC-related reliability standards within 270 days after the publication of the Final Rule in the Federal Register. We also direct public utilities to work through NAESB to develop business practices that complement NERCs new reliability standards within 360 days after the publication of the Final Rule in the Federal Register. Finally, we direct NERC and

NAESB to file, within 90 days of publication of the Final Rule in the Federal Register, a joint status report on standards and business practices development and a work plan for completion of this task within the timeframe established above.160"

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Done.
Status: Filed Delivery: 2008
Solution Details:
Done.

DIRECTIVE: S- Ref 10190 - The Commission adopts the NOPR proposal and directs public utilities, working through NERC, to develop consistent practices for calculating TTC/TFC. We direct public utilities, working through NERC, to address, through the reliability stand

Para 237

"The Commission adopts the NOPR proposal and directs public utilities, working through NERC, to develop consistent practices for calculating TTC/TFC. We direct public utilities, working through NERC, to address, through the reliability standards process, any differences in developing TTC/TFC for transmission provided under the pro forma OATT and for transfer capability for native load and reliability assessment studies."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030 MOD-028, MOD-029, MOD-030
Status: Filed Delivery: 2008
Solution Details:
MOD-028, MOD-029, MOD-030 MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10191 - To achieve greater consistency in ETC calculations and further reduce the potential for undue discrimination, the Commission adopts the NOPR proposal and directs public utilities, working through NERC and NAESB, to develop a consistent appr

Para 243

"To achieve greater consistency in ETC calculations and further reduce the potential for undue discrimination, the Commission adopts the NOPR proposal and directs public utilities, working through NERC and NAESB, to develop a consistent approach for determining the amount of transfer capability a transmission provider may set aside for its native load and other committed

uses. We expect that NERC will address ETC through the MOD-001 reliability standard rather than through a separate reliability standard.¹⁶⁹ By using MOD-001, the ETC calculation can be adjusted to be applicable to each of the three ATC methodologies under development by NERC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030. Note addressed through alternate standards structure. Done.

Status: Filed Delivery: 2008

Solution Details:

MOD-028, MOD-029, MOD-030. Note addressed through alternate standards structure. Done.

DIRECTIVE: S- Ref 10192 - In order to provide specific direction to public utilities and NERC, we determine that ETC should be defined to include committed uses of the transmission system, including (1) native load commitments (including network service), (2) grandfa

Para 244

"In order to provide specific direction to public utilities and NERC, we determine that ETC should be defined to include committed uses of the transmission system, including (1) native load commitments (including network service), (2) grandfathered transmission rights, (3) appropriate point-to-point reservations,¹⁷⁰ (4) rollover rights associated with long-term firm service, and (5) other uses identified through the NERC process. ETC should not be used to set aside transfer capability for any type of planning or contingency reserve, which are to be addressed through CBM and TRM.¹⁷¹ In addition, in the short-term ATC calculation, all reserved but unused transfer capability (non-scheduled) shall be released as non-firm ATC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030 MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008

Solution Details:

MOD-028, MOD-029, MOD-030 MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10193 - We agree with TDU Systems that inclusion of all requests for transmission service in ETC would likely overstate usage of the system and understate ATC. We therefore find that reservations that have the same point of receipt (POR) (generator

Para 245

"We agree with TDU Systems that inclusion of all requests for transmission service in ETC would likely overstate usage of the system and understate ATC. We therefore find that reservations that have the same point of receipt (POR) (generator) but different point of delivery (POD) (load), for the same time frame, should not be modeled in the

ETC calculation simultaneously if their combined reserved transmission capacity exceeds the generators nameplate capacity at POR. This will prevent overly unrealistic utilization of transmission capacity associated with power output from a generator identified as a POR. We direct public utilities, working through NERC, to develop requirements in MOD-001 that lay out clear instructions on how these reservations should be accounted. One approach that could be used is examining historical patterns of

actual reservation use during a particular season, month, or time of day."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Not addressed (FERC says we have addressed sufficiently). MOD-028, MOD-029, MOD-030. Note addressed through alternate standards structure.

Status: Filed Delivery: 2008

Solution Details:

Not addressed (FERC says we have addressed sufficiently). MOD-028, MOD-029, MOD-030. Note addressed through alternate standards structure.

DIRECTIVE: S- Ref 10239 - The Commission concludes that it is appropriate to allow LSEs to retain the option of setting aside transfer capability in the form of CBM to maintain their generation reliability requirement. We agree with commenters that, without CBM, LSE

Para 256

"The Commission concludes that it is appropriate to allow LSEs to retain the option of setting aside transfer capability in the form of CBM to maintain their generation reliability requirement. We agree with commenters that, without CBM, LSEs would have to increase their generation reserve margins by contracting for generation capacity,

which may result in higher costs without additional reliability benefits. We require, however, the development of standards for how CBM is determined, allocated across transmission paths, and used in order to limit misuse of transfer capability set aside as CBM. Transmission providers also must reflect the set-aside of transfer capability as

CBM in the development of the rate for point-to-point transmission service to ensure comparable treatment for point-to-point to customers."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004; Rates not in scope MOD-004;

Status: Filed Delivery: 2009

Solution Details:

MOD-004; Rates not in scope MOD-004;

DIRECTIVE: S- Ref 10241 - The Commission therefore adopts a combination of the NOPR options one and two, and declines to adopt option three. First, we require public utilities, working through NERC and NAESB, to develop clear standards for how the CBM value shall be

Para 257

"The Commission therefore adopts a combination of the NOPR options one and two, and declines to adopt option three. First, we require public utilities, working through NERC and NAESB, to develop clear standards for how the CBM value shall be determined, allocated across transmission paths, and used. We understand that NERC has already begun the process of modifying several of the CBM-related reliability

standards and that the drafting process is a joint project with NAESB. Second, we require transmission providers to reflect the set-aside of transfer capability as CBM in the development of the rate for point-to-point transmission service."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004; Rates outside NERC scope. MOD-004;

Status: Filed Delivery: 2009

Solution Details:

MOD-004; Rates outside NERC scope. MOD-004;

DIRECTIVE: S- Ref 10242 - To ensure CBM is used for its intended purpose, CBM shall only be used to allow an LSE to meet its generation reliability criteria. Consistent with Dukes statement, we clarify that each LSE within a transmission providers control area has t

Para 259

"To ensure CBM is used for its intended purpose, CBM shall only be used to allow an LSE to meet its generation reliability criteria. Consistent with Dukes statement, we clarify that each LSE within a transmission providers control area has the right to request the transmission provider to set aside transfer capability as CBM for the LSE to meet its historical, state, RTO, or regional generation reliability criteria requirement such as

reserve margin, loss of load probability (LOLP), the loss of largest units, etc."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 MOD-004

Status: Filed Delivery: 2009

Solution Details:

MOD-004 MOD-004

DIRECTIVE: S- Ref 10243 - We direct public utilities, working through NERC, to develop clear requirements for allocating CBM over transmission paths and flowgates. While we do not mandate a particular methodology for allocating CBM to paths and flowgates, one approach

Para 260

"We direct public utilities, working through NERC, to develop clear requirements for allocating CBM over transmission paths and flowgates. While we do not mandate a particular methodology for allocating CBM to paths and flowgates, one approach could be based on the location of the outside resources or spot market hubs that an LSE has historically relied on during emergencies resulting from an energy deficiency."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 R1.2

Status: Filed Delivery: 2008

Solution Details:

MOD-004 R1.2

DIRECTIVE: S- Ref 10244 - We concur with TAPS proposal that all LSEs should have access to CBM and meaningful input into how much transfer capability is set aside as CBM. In the transparency section below, we provide detailed requirements regarding availability of d

Para 261

"We concur with TAPS proposal that all LSEs should have access to CBM and meaningful input into how much transfer capability is set aside as CBM. In the transparency section below, we provide detailed requirements regarding availability of documentation used to determine the amount of transfer capability to be set aside as CBM and the posting of CBM values and narratives. Access to this documentation will enable LSEs to validate how much transfer capability is set aside as CBM on each system and provide them with information to question whether the set-aside is consistent with the reliability standards and this Final Rule."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 MOD-004

Status: Filed Delivery: 2009

Solution Details:

MOD-004 MOD-004

DIRECTIVE: S- Ref 10245 - Concerning TAPS proposal to remove the reservation decision from the sole discretion of transmission providers, we determine that LSEs should be permitted to call for use of CBM, if they do so pursuant to conditions established in the reliability

Para 262

"Concerning TAPS proposal to remove the reservation decision from the sole discretion of transmission providers, we determine that LSEs should be permitted to call for use of CBM, if they do so pursuant to conditions established in the reliability standards development process. We direct public utilities working through NERC to modify the CBM-related standards to specify the generation deficiency conditions during

which an LSE will be allowed to use the transfer capability reserved as CBM. In addition, we direct that transmission set aside as CBM shall be zero in non-firm ATC calculations. Finally, we order public utilities to work with NAESB to develop an OASIS mechanism that will allow for auditing of CBM usage."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004; MOD-028, MOD-029, MOD-030 MOD-004; MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2009

Solution Details:

MOD-004; MOD-028, MOD-029, MOD-030 MOD-004; MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10264 - The Commission adopts the NOPR proposal and requires public utilities, working through NERC, to complete the ongoing process of modifying TRM standards MOD-008 and MOD-009. We understand that the standard drafting process is underway as a joint project with NAESB.

Para 272

"The Commission adopts the NOPR proposal and requires public utilities, working through NERC, to complete the ongoing process of modifying TRM standards MOD-008 and MOD-009. We understand that the standard drafting process is underway as a joint project with NAESB."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Done. MOD-009 retired. MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008

Solution Details:

Done. MOD-009 retired. MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10246 - The Commission also adopts the NOPR proposal to establish standards specifying the appropriate uses of TRM to guide NERC and NAESB in the drafting process. Transmission providers may set aside TRM for (1) load forecast and load distribution

Para 273

"The Commission also adopts the NOPR proposal to establish standards specifying the appropriate uses of TRM to guide NERC and NAESB in the drafting process. Transmission providers may set aside TRM for (1) load forecast and load distribution error, (2) variations in facility loadings, (3) uncertainty in transmission system topology,

(4) loop flow impact, (5) variations in generation dispatch, (6) automatic sharing of reserves, and (7) other uncertainties as identified through the NERC reliability standards development process. Because load, facility loading and other uncertainties constantly deviate, we will not require that TRM set aside capacity be set at zero in the non-firm ATC calculation. In other words, we will not require transfer capability that is set aside

as TRM to be sold on a non-firm basis. We find that clear specification in this Final Rule of the permitted purposes for which entities may reserve CBM and TRM will virtually eliminate double-counting of TRM and CBM."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008 R1

Status: Filed Delivery: 2008

Solution Details:

MOD-008 R1

DIRECTIVE: S- Ref 10265 - In addition, we direct public utilities, working through NERC, to establish an appropriate maximum TRM. One acceptable method may be to use a percentage of ratings reduction, i.e., model the system assuming all facility ratings are reduced

Para 275

"In addition, we direct public utilities, working through NERC, to establish an appropriate maximum TRM. One acceptable method may be to use a percentage of ratings reduction, i.e., model the system assuming all facility ratings are reduced by a specific percentage. This is a relatively simple method and, if adopted as the reliability standards method, should not restrict a transmission provider from using a more

sophisticated method that may allow for greater ATC without reducing overall reliability."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008 Done. MOD-009 retired.

Status: Filed Delivery: 2008

Solution Details:

MOD-008 Done. MOD-009 retired.

DIRECTIVE: S- Ref 10272 - The Commission directs public utilities, working through NERC, to modify the reliability standards MOD-010 through MOD-025 to incorporate a requirement for the periodic review and modification of models for (1) load flow base cases with con

Para 290

"The Commission directs public utilities, working through NERC, to modify the reliability standards MOD-010 through MOD-025 to incorporate a requirement for the periodic review and modification of models for (1) load flow base cases with contingency, subsystem, and monitoring files, (2) short circuit data, and (3) transient and dynamic stability simulation data, in order to ensure that they are up to date. This means that the models should be updated and benchmarked to actual events. We find that this requirement is essential in order to have an accurate simulation of the performance of the grid and from which to comparably calculate ATC, therefore increasing transparency and decreasing the potential for undue discrimination by transmission providers."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10194 - The Commission also adopts the NOPR proposal to require transmission providers to use data and modeling assumptions for the short- and long-term ATC calculations that are consistent with that used for the planning of operations and system e

Para 292

"The Commission also adopts the NOPR proposal to require transmission providers to use data and modeling assumptions for the short- and long-term ATC calculations that are consistent with that used for the planning of operations and system expansion, respectively, to the maximum extent practicable. This includes, for example: (1) load

levels, (2) generation dispatch, (3) transmission and generation facilities maintenance schedules, (4) contingency outages, (5) topology, (6) transmission reservations, (7) assumptions regarding transmission and generation facilities additions and retirements, and (8) counterflows. We find that requiring consistency in the data and modeling assumptions used for ATC calculations will remedy the potential for undue discrimination by eliminating discretion and ensuring comparability in the manner in

which a transmission provider operates and plans its system to serve native load and the manner in which it calculates ATC for service to third parties. The Commission directs public utilities, working through NERC, to modify ATC standards to achieve this consistency."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030 MOD-008 R1

Status: Filed Delivery: 2008

Solution Details:

MOD-028, MOD-029, MOD-030 MOD-008 R1

DIRECTIVE: S- Ref 10195 - With regard to EPSAs request for the standardization of additional data inputs, we believe they are already captured in the Commissions proposal as adopted in this Final Rule. Xcel asks the Commission to require consistency in the determina

Para 293

"With regard to EPSAs request for the standardization of additional data inputs, we believe they are already captured in the Commissions proposal as adopted in this Final Rule. Xcel asks the Commission to require consistency in the determination of counterflows in the calculation of ATC. Counterflows are included in the list of assumptions that public utilities, working through NERC, are required to make consistent. We believe that counterflows, if treated inconsistently, can adversely affect

reliability and competition, depending on how they are accounted for. Accordingly, we reiterate that public utilities, working through NERC and NAESB, are directed to develop an approach for

accounting for counterflows, in the relevant ATC standards and business practices. We find unnecessary Xcel's request that we require a date certain for specific

issues in the Western Interconnection to be addressed. Above we require public utilities, working through NERC, to modify the ATC standards within 270 days after the publication of the Final Rule in the Federal Register."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R3. Note that the standards require disclosure of how counterflows are managed, and do not require a specific manner of handling. This approach has currently been accepted by FERC. MOD-008 R1

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R3. Note that the standards require disclosure of how counterflows are managed, and do not require a specific manner of handling. This approach has currently been accepted by FERC. MOD-008 R1

DIRECTIVE: S- Ref 10196 - Para 295. We offer the following clarifications. In response to Southern, we clarify that we require consistent use of assumptions underlying operational planning for short-term ATC and expansion planning for long-term ATC calculation. We a

Para 295

"295. We offer the following clarifications. In response to Southern, we clarify that we require consistent use of assumptions underlying operational planning for short-term ATC and expansion planning for long-term ATC calculation. We also clarify that there must be a consistent basis or approach to determining load levels. For example, one approach may be for transmission providers to calculate load levels using an on- and offpeak model for each month when evaluating yearly service requests and calculating yearly ATC. The same (peak- and off-peak) or alternative approaches may be used for monthly, weekly, daily and hourly ATC calculations. Regardless of the ultimate choice of approach, it is imperative that all transmission providers use the same approach to

modeling load levels to enable the meaningful exchange of data among transmission providers. Accordingly, we direct public utilities, working through NERC, to develop consistent requirements for modeling load levels in MOD-001 for the services offered under the pro forma OATT."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001; MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008

Solution Details:

MOD-001; MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10197 - Para 296. With respect to modeling of generation dispatch, we direct public utilities, working through NERC, to develop requirements in NERCs MOD-001 reliability standard specifying how transmission providers shall determine which generator

Para 296

"296. With respect to modeling of generation dispatch, we direct public utilities, working through NERC, to develop requirements in NERCs MOD-001 reliability standard specifying how transmission providers shall determine which generators should be modeled in service, including guidance on how independent generation should be considered. We agree with Ameren that any modeling of base generation dispatch must

model generators, including merchant generators, as they are expected to run. Accordingly, we direct public utilities, working through NERC, to revise reliability standard MOD-001 by specifying that base generation dispatch will model (1) all designated network resources and other resources that are committed or have the legal obligation to run, as they are expected to run and (2) uncommitted resources that are deliverable within the control area, economically dispatched as necessary to meet

balancing requirements."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R9; MOD-028, MOD-030. Not addressed in MOD-029. MOD-001 R3. Note that the standards require disclosure of how counterflows are managed, and do not require a specific manner of handling. This approach has currently been accepted by FERC.

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R9; MOD-028, MOD-030. Not addressed in MOD-029. MOD-001 R3. Note that the standards require disclosure of how counterflows are managed, and do not require a specific manner of handling. This approach has currently been accepted by FERC.

DIRECTIVE: S- Ref 10198 - Regarding transmission reservations modeling, we direct public utilities, working through NERC, to develop requirements in reliability standard MOD-001 that specify (1) a consistent approach on how to simulate reservations from points of re

Para 297

"Regarding transmission reservations modeling, we direct public utilities, working through NERC, to develop requirements in reliability standard MOD-001 that specify (1) a consistent approach on how to simulate reservations from points of receipt to points of delivery when sources and sinks are unknown and (2) how to model existing

reservations."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028 R4.3 MOD-029 Not applicable. MOD-030 R1.2, R4 Note that MOD-029 uses named paths, not Source-to-Sink analysis. MOD-001; MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008

Solution Details:

MOD-028 R4.3

MOD-029 Not applicable.

MOD-030 R1.2, R4

Note that MOD-029 uses named paths, not Source-to-Sink analysis. MOD-001; MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10199 - The Commission adopts the NOPR proposal and requires the development of reliability standards that ensure ATC is calculated at consistent intervals among transmission providers. The Commission thus directs public utilities, working through

Para 301

"The Commission adopts the NOPR proposal and requires the development of reliability standards that ensure ATC is calculated at consistent intervals among transmission providers. The Commission thus directs public utilities, working through NERC and NAESB, to revise reliability standard MOD-001 to require ATC to be recalculated by all transmission providers on a consistent time interval and in a manner

that closely reflects the actual topology of the system, e.g., generation and transmission outages, load forecast, interchange schedules, transmission reservations, facility ratings, and other necessary data. This process must also consider whether ATC should be calculated more frequently for constrained facilities. ATC-related requirements for OASIS posting are discussed below."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R8; MOD-030 R10. Also MOD-028, MOD-029, and MOD-030 in general. MOD-001; MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R8; MOD-030 R10. Also MOD-028, MOD-029, and MOD-030 in general. MOD-001; MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10200 - The Commission adopts the NOPR proposal and directs public utilities, working through NERC, to revise the related MOD reliability standards to require the exchange of data and coordination among transmission providers and, working through N

Para 310

"The Commission adopts the NOPR proposal and directs public utilities, working through NERC, to revise the related MOD reliability standards to require the exchange of data and coordination among transmission providers and, working through NAESB, to develop complementary business practices. The following data shall, at a minimum, be exchanged among transmission providers for the purposes of ATC modeling: (1) load levels; (2) transmission planned and contingency outages; (3) generation planned and contingency outages; (4) base generation dispatch; (5) existing transmission reservations, including counterflows; (6) ATC recalculation frequency and times; and (7) source/sink modeling identification. The Commission concludes that the exchange of such data is necessary to support the reforms requiring consistency in the determination of ATC adopted in this Final Rule. As explained above, transmission providers are required to coordinate the calculation of TTC/TFC and ATC/AFC with others and this requires a standard means of exchanging data."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R9 MOD-001 R9; MOD-028, MOD-030. Not addressed in MOD-029.

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R9 MOD-001 R9; MOD-028, MOD-030. Not addressed in MOD-029.

DIRECTIVE: S- Ref 10201 - Para 338 we require that the information in Attachment C be sufficient to demonstrate that a transmission provider is not double counting CBM in its ATC calculation.

Para 338

"338. We adopt EEI's proposal that the Commission revise Attachment C, section 3(f) to replace the word prove with the word demonstrate. The word demonstrate more accurately describes the showing we expect the transmission provider to make. We agree that the word prove implies a standard of proof that we did not intend to impose. We also acknowledge TVAs' comments that the NERC standards drafting team is developing standards that should address double counting in ATC calculations in general. However, we require that the information in Attachment C be sufficient to demonstrate that a transmission provider is not double counting CBM in its ATC calculation."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Addressed by TSPs and/or NAESB

Status: Filed Delivery: 2009

Solution Details:

This directive actually applies to the TSPs. NERC cannot modify OATT Attachment C.

DIRECTIVE: S- Ref 10247 - Para 354. The Commission adopts the CBM posting requirements proposed in the NOPR. In doing so, we amend our OASIS regulations to incorporate the directives established in the CBM Order. Accordingly, we require transmission providers to p

Para 354

"354. The Commission adopts the CBM posting requirements proposed in the NOPR. In doing so, we amend our OASIS regulations to incorporate the directives established in the CBM Order. Accordingly, we require transmission providers to post (and update) the CBM amount for each path. In addition, the Commission requires transmission providers to make any transfer capability set aside for CBM but unused for such purpose available on a non-firm basis and to post this availability on OASIS. Furthermore, the Commission requires transmission providers to post (and update) the TRM values for the paths on which the transmission provider already posts ATC, TTC, and CBM."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

CBM Released Non-Firm; postings handled by NAESB

Status: Filed Delivery: 2009

Solution Details:

MOD-028, MOD-029, and MOD-030 specify that CBM is not included in the non-firm ATC equation. Requirements for posting on OASIS are handled by NAESB.

DIRECTIVE: S- Ref 10248 - The Commission incorporates into its regulations the requirement in the CBM Order for a transmission provider to periodically reevaluate its transfer capability setaside for CBM. With respect to TAPS concerns over the effort involved in the

Para 358

"The Commission incorporates into its regulations the requirement in the CBM Order for a transmission provider to periodically reevaluate its transfer capability setaside for CBM. With respect to TAPS concerns over the effort involved in the reevaluation process, we will require CBM studies to be performed at least every year. This requirement is consistent with the CBM Order, in which the Commission stated that the level of ATC set aside for CBM should be reevaluated periodically to take into

account more certain information (such as assumptions that may not have, in fact, materialized.)"

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 R5, R6 MOD-004 R5, R6

Status: Filed Delivery: 2009

Solution Details:

MOD-004 R5, R6 MOD-004 R5, R6

DIRECTIVE: S- Ref 10249 - While changes requiring a reevaluation of CBM are longer-term in nature (e.g., installation of a new generator or a long-term outage), quarterly may be too frequent, though two years may be too long and may prevent a portion of the CBM seta

Para 358

"While changes requiring a reevaluation of CBM are longer-term in nature (e.g., installation of a new generator or a long-term outage), quarterly may be too frequent, though two years may be too long and may prevent a portion of the CBM setaside from being released as ATC. Moreover, annual reevaluation is consistent with the current NERC standard being developed in MOD-005.205 The requirement to evaluate

CBM at least every year also is consistent with the CBM Order in that the Commission directed transmission providers to periodically reevaluate their generation reliability needs so as to make known the need for CBM and to post on OASIS their practices in this regard."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 R5, R6

Status: Filed Delivery: 2008

Solution Details:

MOD-004 R5, R6

DIRECTIVE: S- Ref 10202 - We affirm our statement in the NOPR proposal acknowledging that transfer capability associated with transmission reservations that are not scheduled in real time is required to be made available as non-firm, and posted on OASIS.

Para 389

"We affirm our statement in the NOPR proposal acknowledging that transfer capability associated with transmission reservations that are not scheduled in real time is required to be made available as non-firm, and posted on OASIS."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030. Posting handled by NAESB. MOD-028 R4.3 MOD-029 Not applicable. MOD-030 R1.2, R4 Note that MOD-029 uses named paths, not Source-to-Sink analysis.

Status: Filed Delivery: 2008

Solution Details:

MOD-028, MOD-029, MOD-030. Posting handled by NAESB. MOD-028 R4.3

*MOD-029 Not applicable.
MOD-030 R1.2, R4*

Note that MOD-029 uses named paths, not Source-to-Sink analysis.

FERC-Mandatory Reliability Standards for the Bulk-Power System (Order 693)

Issued 3/16/2007

DIRECTIVE: S- Ref 10164 - Provide a framework for ATC, TTC, and ETC calculation, developing industry-wide consistency of all ATC components. Three methodologies are expected: contract path ATC, network ATC, and network AFC.

Para 1029

"Provide a framework for ATC, TTC, and ETC calculation, developing industry-wide consistency of all ATC components. Three methodologies are expected: contract path ATC, network ATC, and network AFC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

*MOD-028, MOD-029, MOD-030
Status: Filed Delivery: 2008
Solution Details:
MOD-028, MOD-029, MOD-030*

DIRECTIVE: S- Ref 10176 - there is neither a definition of AFC/TFC (Total Flowgate Capability) in the EROs glossary nor an existing Reliability Standard that discusses AFC. Consistent with our approach to achieving consistency and transparency, we direct the ERO to

Para 1031

"there is neither a definition of AFC/TFC (Total Flowgate Capability) in the EROs glossary nor an existing Reliability Standard that discusses AFC. Consistent with our approach to achieving consistency and transparency, we direct the ERO to develop AFC/TFC definitions and requirements used to identify a particular set of transmission facilities as flowgates."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

*Resolved
Status: Filed Delivery: 2008
Solution Details:
Resolved*

DIRECTIVE: S- Ref 10172 - Provides for the conversion of AFC to ATC.

Para 1031

"Provides for the conversion of AFC to ATC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

*MOD-030 R11
Status: Filed Delivery: 2008
Solution Details:
MOD-030 R11*

DIRECTIVE: S- Ref 10177 - The Commission directs the ERO to develop a consistent approach for determining the amount of transfer capability a transmission provider may set aside for its native load and other committed uses. We expect that the ERO will address ETC t

Para 1032

"The Commission directs the ERO to develop a consistent approach for determining the amount of transfer capability a transmission provider may set aside for its native load and other committed uses. We expect that the ERO will address ETC through the MOD-001-0 Reliability Standard rather than through a separate Reliability Standard."

we determine that ETC should be defined to include committed uses of the transmission system, including: (1) native load commitments (including network service); (2) grandfathered transmission rights; (3) firm and non-firm point-to-point reservations; (4) rollover rights associated with long-term firm service and (5) other uses identified through the ERO process. ETC should not be used to set aside transfer capability for any type of planning or contingency reserve; these are to be addressed through CBM and TRM. In addition, in the short-term ATC calculation, all reserved but unused transfer capability (non-scheduled) must be released as non-firm ATC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10178 - we find that reservations that have the same point of receipt (POR) (generator) but different point of delivery (POD) (load), for the same time frame, should not be modeled in the ETC calculation simultaneously if their combined reserved tr

Para 1033

"we find that reservations that have the same point of receipt (POR) (generator) but different point of delivery (POD) (load), for the same time frame, should not be modeled in the ETC calculation simultaneously if their combined reserved transmission capacity exceeds the generators nameplate capacity at a POR. This will prevent unrealistic use of transmission capacity associated with power output from a generator identified as a POR. One approach that could be used is examining historical patterns of actual reservation use during a particular season, month, or time of day."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10179 - identifies to whom MOD-001-0 Reliability Standards apply, i.e., users, owners and operators of the Bulk-Power System.

Para 1034

"identifies to whom MOD-001-0 Reliability Standards apply, i.e., users, owners and operators of the Bulk-Power System."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10168 - direct the ERO to modify Reliability Standard MOD-001-0 to require disclosure of the algorithms and processes used in ATC calculation. In addition, consistent with Order No. 890, the Commission believes that further clarification is necess

Para 1036

"direct the ERO to modify Reliability Standard MOD-001-0 to require disclosure of the algorithms and processes used in ATC calculation. In addition, consistent with Order No. 890, the Commission believes that further clarification is necessary regarding the ATC calculation algorithm for firm and non-firm ATC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10181 - we direct the ERO to modify Reliability Standard MOD-001-0 to require disclosure of the algorithms and processes used in ATC calculation, and also to implement the following principles for firm and non-firm ATC calculations: (1) for firm A

Para 1036

"we direct the ERO to modify Reliability Standard MOD-001-0 to require disclosure of the algorithms and processes used in ATC calculation, and also to implement the following principles for firm and non-firm ATC calculations: (1) for firm ATC calculations, the transmission provider shall account only for firm commitments and (2) for non-firm ATC calculations, the transmission provider shall account for both firm and non-firm commitments, postbacks of redirected service, unscheduled service and counterflows."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10169 - Identify a detailed list of information to be exchanged among transmission providers for the purposes of ATC modeling.

Para 1038

"Identify a detailed list of information to be exchanged among transmission providers for the purposes of ATC modeling."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R9

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R9

DIRECTIVE: S- Ref 10170 - Include a requirement that assumptions used in the ATC and AFC calculations should be consistent with those used for planning the expansion of or operation of the bulk power system.

Para 1039

"Include a requirement that assumptions used in the ATC and AFC calculations should be consistent with those used for planning the expansion of or operation of the bulk power system."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R6, R7

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R6, R7

DIRECTIVE: S- Ref 10182 - Accordingly, we direct the ERO to develop consistent requirements for modeling load levels in MOD-001-0

Para 1040

"Accordingly, we direct the ERO to develop consistent requirements for modeling load levels in MOD-001-0"

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10183 - With respect to modeling of generation dispatch, we direct the ERO to develop requirements in MOD-001-0 specifying how transmission providers should determine which generators should be modeled in service, including guidance on how indepen

Para 1041

"With respect to modeling of generation dispatch, we direct the ERO to develop requirements in MOD-001-0 specifying how transmission providers should determine which generators should be modeled in service, including guidance on how independent generation should be considered. Accordingly, we direct the ERO to revise Reliability Standard MOD-001-0 by specifying that base generation dispatch will model: (1) all designated network resources and other resources that are committed to or have the legal obligation to run, as they are expected to run and (2) all uncommitted resources that are deliverable within the control area, economically dispatched as necessary to meet balancing requirements."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10171 - Require ATC to be updated on a consistent time interval.

Para 1042

"1042.Regarding transmission reservations modeling, we direct the ERO to develop requirements in Reliability Standard MOD-001-0 that specify: (1) a consistent approach on how to simulate reservations from points of receipt to points of delivery when sources and sinks are unknown and (2) how to model existing reservations."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R8; MOD-030 R10

Status: Filed Delivery: 2008

Solution Details:

MOD-001 R8; MOD-030 R10

DIRECTIVE: S- Ref 10184 - Regarding transmission reservations modeling, we direct the ERO to develop requirements in Reliability Standard MOD-001-0 that specify: (1) a consistent approach on how to simulate reservations from points of receipt to points of delivery w

Para 1042

"Regarding transmission reservations modeling, we direct the ERO to develop requirements in Reliability Standard MOD-001-0 that specify: (1) a consistent approach on how to simulate reservations from points of receipt to points of delivery when sources and sinks are unknown and (2) how to model existing reservations."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10185 - the Commission directs the ERO to modify Reliability Standard MOD-001-0 to require ATC to be updated by all transmission providers on a consistent time interval and in a manner that closely reflects the actual topology of the system, e.g.,

Para 1043

"the Commission directs the ERO to modify Reliability Standard MOD-001-0 to require ATC to be updated by all transmission providers on a consistent time interval and in a manner that closely reflects the actual topology of the system, e.g., generation and transmission outages, load forecasts, interchange schedules, transmission reservations, facility ratings and other necessary data. This process must also consider whether ATC should be calculated more frequently for constrained facilities."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10173 - Applicable entities must make available their assumptions and contingencies underlying ATC and TTC calculations.

Para 1046

"Applicable entities must make available their assumptions and contingencies underlying ATC and TTC calculations."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Addressed by MOD-001 and made available through NAESB via Joint Coordination

Status: Filed Delivery: 2008

Solution Details:

Addressed by MOD-001 and made available through NAESB via Joint Coordination

DIRECTIVE: S- Ref 10186 - direct the ERO to develop in MOD-001-0 a requirement that each transmission service provider provide on OASIS its OATT Attachment C, in which Order No. 890 requires transmission providers to include a detailed description of the specific ma

Para 1047

"direct the ERO to develop in MOD-001-0 a requirement that each transmission service provider provide on OASIS its OATT Attachment C, in which Order No. 890 requires transmission providers to include a detailed description of the specific mathematical algorithm the transmission provider uses to calculate both firm and non-firm ATC for various time frames such as: (1) the scheduling horizon (same day and real-time), (2) operating horizon (day ahead and pre-schedule) and (3) planning horizon (beyond the operating horizon). In addition, a transmission provider must include a process flow diagram that describes the various steps that it takes in performing the ATC calculation."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10130 - Para 1051. The Commission directs the ERO, through the Reliability Standards development process, to modify FAC-012-1 and any other appropriate Reliability Standards to assure consistency in the determination of TTC/TFC for services provide

Para 1051

"1051. The Commission directs the ERO, through the Reliability Standards development process, to modify FAC-012-1 and any other appropriate Reliability Standards to assure consistency in the determination of TTC/TFC for services provided under the pro forma OATT, and requires that those processes be the same as those used in operation and planning for native load and reliability assessment studies. Changes to the process of calculating TTC are appropriate if implementation is coordinated with revisions to the other applicable operating or planning standards. We acknowledge that reliability regions have historically calculated transfer capability using different approaches, and we agree that regional differences should be respected. However, as already discussed above regarding ATC, TTC requirements will be determined in the ERO Reliability Standards development process, and any request for a regional difference from the Reliability Standards must take place through the ERO process."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

ATC-related standards replace FAC versions

Status: Filed Delivery: 2009

Solution Details:

MOD-001, -004, -008, -028, -029, and -030 have replaced FAC-012 and FAC-013 in the 1-year horizon. FAC-013 addresses longer term horizon. Necessary coordination has occurred.

DIRECTIVE: S- Ref 10129 - Para 1051. The Commission directs the ERO, through the Reliability Standards development process, to modify FAC-012-1 and any other appropriate Reliability Standards to assure consistency in the determination of TTC/TFC for services provide

Para 1051

"1051.The Commission directs the ERO, through the Reliability Standards development process, to modify FAC-012-1 and any other appropriate Reliability Standards to assure consistency in the determination of TTC/TFC for services provided under the pro forma OATT, and requires that those processes be the same as those used in operation and planning for native load and reliability assessment studies. Changes to the process of calculating TTC are appropriate if implementation is coordinated with revisions to the other applicable operating or planning standards. We acknowledge that reliability regions have historically calculated transfer capability using different approaches, and we agree that regional differences should be respected. However, as already discussed above regarding ATC, TTC requirements will be determined in the ERO Reliability Standards development process, and any request for a regional difference from the Reliability Standards must take place through the ERO process."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-001 R6 & R7; Retirement of FAC-012

Status: Filed Delivery: 2011

Solution Details:

FAC-012 has been retired. Subsequently, NERC made related changes to FAC-013 in the FAC Order 729 Project.

MOD-001 R6 and R7 deal with the consistency issue.

DIRECTIVE: S- Ref 10175 - Identify applicable entities in terms of users, owners, and operators of the bulk power system.

Para 1056

"Identify applicable entities in terms of users, owners, and operators of the bulk power system."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Done

Status: Filed Delivery: 2008

Solution Details:

Done

DIRECTIVE: S- Ref 10174 - Focus of ATC/AFC with this standard; FAC-012-1 should focus on TTC/TFC.

Para 1057

"Focus of ATC/AFC with this standard; FAC-012-1 should focus on TTC/TFC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Not addressed - chose alternate structure for standards.

Status: Filed Delivery: 2008

Solution Details:

Not addressed - chose alternate structure for standards.

DIRECTIVE: S- Ref 10230 - Consider APPAs suggestion that MOD-003 may be redundant and should be eliminated through the standards development process if certain reporting requirements are included in MOD-001.

Para 1066

"Consider APPAs suggestion that MOD-003 may be redundant and should be eliminated through the standards development process if certain reporting requirements are included in MOD-001."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-003 eliminated.

Status: Filed Delivery: 2008

Solution Details:

MOD-003 eliminated.

DIRECTIVE: S- Ref 10232 - Develop requirements regarding transparency of the generation planning studies used to determine CBM values.

Para 1077

"Develop requirements regarding transparency of the generation planning studies used to determine CBM values."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 R1

Status: Filed Delivery: 2009

Solution Details:

MOD-004 R1

DIRECTIVE: S- Ref 10231 - Clarify that CBM shall be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state, RTO, or regional generation reliability criteria.

Para 1077

"Clarify that CBM shall be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state, RTO, or regional generation reliability criteria."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004

Status: Filed Delivery: 2009

Solution Details:

MOD-004

DIRECTIVE: S- Ref 10240 - Para 1077 ... We expect verification of the CBM values to be part of the Requirements with appropriate Measures and Levels of Non-Compliance.

Para 1077

"1077.We agree with FirstEnergy that CBM is important for system reliability by allowing the LSEs to meet their historical, state, RTO or regional generation reliability criteria requirement such as reserve margin, loss of load probability, loss of largest units, etc. We agree with EEI and MidAmerican that transparency of the studies supporting CBM determination will reduce the opportunity for transmission service providers to overestimate the amount of CBM and misuse transfer capability. We therefore direct the ERO to develop Requirements regarding transparency of the generation planning studies used to determine CBM values. We also clarify that CBM should only be set aside upon request of any LSE within a balancing area to meet its verifiable historical, state, RTO or regional generation reliability criteria requirement such as reserve margin, loss of load probability, loss of largest units, etc. We expect verification of the CBM values to be part of the Requirements with appropriate Measures and Levels of Non-Compliance."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 R3,R4,R5,R6 address

Status: Filed Delivery: 2009

Solution Details:

MOD-004 addresses in requirements R3, R4, R5, and R6. These require the use of these studies and their provision to the TP/TSP.

DIRECTIVE: S- Ref 10238 - We continue to believe this Reliability Standard should be modified to include a provision ensuring that CBM, TRM and ETC cannot be used for the same purpose, such as loss of the identical generating unit. In order to limit misuse of trans

Para 1078

"We continue to believe this Reliability Standard should be modified to include a provision ensuring that CBM, TRM and ETC cannot be used for the same purpose, such as loss of the identical generating unit. In order to limit misuse of transfer capability set aside as CBM, we direct the ERO to provide more specific requirements for how CBM should be determined and allocated across transmission paths or flowgates."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10235 - Ensure that CBM, TRM, and ETC cannot be used for the same purpose, e.g. loss of the identical generating unit.

Para 1079

"Ensure that CBM, TRM, and ETC cannot be used for the same purpose, e.g. loss of the identical generating unit."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008 R2.

Status: Filed Delivery: 2009

Solution Details:

MOD-008 R2.

DIRECTIVE: S- Ref 10234 - Add LSE as an applicable entity.

Para 1080

"Add LSE as an applicable entity."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Added.

Status: Filed Delivery: 2009

Solution Details:

Added.

DIRECTIVE: S- Ref 10236 - Coordinate with NAESB business practices.

Para 1081

"Coordinate with NAESB business practices."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Done

Status: Filed Delivery: 2009

Solution Details:

Done

DIRECTIVE: S- Ref 10233 - Make clear the process for how CBM is allocated across transmission paths or flowgates.

Para 1082

"Make clear the process for how CBM is allocated across transmission paths or flowgates."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004 R1.2

Status: Filed Delivery: 2009

Solution Details:

MOD-004 R1.2

DIRECTIVE: S- Ref 10237 - Consider APPAs suggestion that MOD-004 may be redundant and could be eliminated is MOD-002 is modified to include reporting requirements.

Para 1083

"Consider APPAs suggestion that MOD-004 may be redundant and could be eliminated is MOD-002 is modified to include reporting requirements."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-002 eliminated.

Status: Filed Delivery: 2009

Solution Details:

MOD-002 eliminated.

DIRECTIVE: S- Ref 10250 - Consider APPAs comment to incorporate MOD-004 and MOD-005 into MOD-006 through the standards development process.

Para 1088

"Consider APPAs comment to incorporate MOD-004 and MOD-005 into MOD-006 through the standards development process."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-005 and MOD-006 eliminated.

Status: Filed Delivery: 2009

Solution Details:

MOD-005 and MOD-006 eliminated.

DIRECTIVE: S- Ref 10251 - Include a requirement that CBM and TRM will not be used for the same purpose.

Para 1098

"Include a requirement that CBM and TRM will not be used for the same purpose."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008 R2

Status: Filed Delivery: 2008

Solution Details:

MOD-008 R2

DIRECTIVE: S- Ref 10252 - CBM should be used for emergency generation deficiencies.

Para 1099

"CBM should be used for emergency generation deficiencies."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004

Status: Filed Delivery: 2009

Solution Details:

MOD-004

DIRECTIVE: S- Ref 10253 - Modify requirement R1.2 to define generation deficiency based on a specific energy emergency alert level.

Para 1100

"Modify requirement R1.2 to define generation deficiency based on a specific energy emergency alert level."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Done in MOD-004.

Status: Filed Delivery: 2009

Solution Details:

Done in MOD-004.

DIRECTIVE: S- Ref 10256 - We direct that CBM may be implemented up to the reserved value when a LSE is facing firm load curtailments.

Para 1101

"We direct that CBM may be implemented up to the reserved value when a LSE is facing firm load curtailments."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10254 - CBM should be zero in the calculation of non-firm ATC.

Para 1101

"CBM should be zero in the calculation of non-firm ATC."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-028, MOD-029, MOD-030

Status: Filed Delivery: 2008

Solution Details:
MOD-028, MOD-029, MOD-030

DIRECTIVE: S- Ref 10257 - We adopt the NOPR proposal that CBM should be used only when the LSEs local generation capacity is insufficient to meet balancing Reliability Standards, with the clarification that the local generation is that generation capacity that is ei

Para 1102

"We adopt the NOPR proposal that CBM should be used only when the LSEs local generation capacity is insufficient to meet balancing Reliability Standards, with the clarification that the local generation is that generation capacity that is either owned or contracted for by the LSE."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Resolved
Status: Filed Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10255 - Expand applicability section to include entities that use CBM, such as LSEs.

Para 1103

"Expand applicability section to include entities that use CBM, such as LSEs."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004
Status: Filed Delivery: 2009
Solution Details:
MOD-004

DIRECTIVE: S- Ref 10258 - Expand applicability section to include entities that use CBM, such as LSEs.

Para 1110

"Expand applicability section to include entities that use CBM, such as LSEs."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-004
Status: Filed Delivery: 2009
Solution Details:
MOD-004

DIRECTIVE: S- Ref 10259 - Expand applicability section to include balancing authorities as well.

Para 1110

"Expand applicability section to include balancing authorities as well."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-007 no longer used.
Status: Filed Delivery: 2009
Solution Details:
MOD-007 no longer used.

DIRECTIVE: S- Ref 10260 - Include clear requirements for how TRM should be calculated, including a methodology for determining maximum TRM values, and allocated across paths.

Para 1122

"Include clear requirements for how TRM should be calculated, including a methodology for determining maximum TRM values, and allocated across paths."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008.
Status: Filed Delivery: 2008
Solution Details:
MOD-008.

DIRECTIVE: S- Ref 10261 - Clear requirements for permitted purposes for which TRM can be set aside and used.

Para 1122

"Clear requirements for permitted purposes for which TRM can be set aside and used."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008 R1

Status: Filed Delivery: 2008

Solution Details:

MOD-008 R1

DIRECTIVE: S- Ref 10262 - Clear requirements for availability of documentation that supports TRM determination.

Para 1123

"Clear requirements for availability of documentation that supports TRM determination."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

MOD-008 R1

Status: Filed Delivery: 2008

Solution Details:

MOD-008 R1

DIRECTIVE: S- Ref 10263 - Expand the applicability to include planning authorities and reliability coordinators.

Para 1124

"Expand the applicability to include planning authorities and reliability coordinators."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

Not addressed - entities do not have responsibilities in standards.

Status: Filed Delivery: 2008

Solution Details:

Not addressed - entities do not have responsibilities in standards.

DIRECTIVE: S- Ref 10266 - Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments.

Para 1147

"Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10267 - Require transmission planners to provide the contingency lists they use in performing system operation and planning studies.

Para 1148

"Require transmission planners to provide the contingency lists they use in performing system operation and planning studies."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10268 - Address critical energy infrastructure confidentiality issues as part of the standard development process.

Para 1152

"Address critical energy infrastructure confidentiality issues as part of the standard development process."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10269 - Expand the applicability to include transmission operators

Para 1154

"Expand the applicability to include transmission operators"

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10271 - We adopt our NOPR proposal that the planning authority should be included in this Reliability Standard because the planning authority is the entity responsible for the coordination and integration of transmission facilities and resource pla

Para 1155

"We adopt our NOPR proposal that the planning authority should be included in this Reliability Standard because the planning authority is the entity responsible for the coordination and integration of transmission facilities and resource plans, as well as one of the entities responsible for the integrity and consistency of the data"

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10273 - Expand the applicability to include the planning authority.

Para 1162

"Expand the applicability to include the planning authority."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10270 - The Commission directs the ERO to develop a Work Plan that will facilitate ongoing collection of the steady-state modeling and simulation data specified in MOD-011-0.

Para 1163

"1163.In response to concerns raised in MOD-010-0 about implementing MOD-010-0 without the data to be collected when MOD-011-0 is modified, we direct the ERO to develop a Work Plan that will facilitate ongoing collection of the steady-state modeling and simulation data specified in MOD-011-0."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTFF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10274 - Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the steady-state modeling and simulation data specified in this standard.

Para 1163

"Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the steady-state modeling and simulation data specified in this standard."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTFF),

and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10275 - Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments.

Para 1177

"Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10279 - As we will discuss in the next section on MOD-013-1, we require the ERO to develop a Work Plan and submit a compliance filing that will facilitate ongoing collection of the dynamics system modeling and simulation data specified by the defer

Para 1177

"As we will discuss in the next section on MOD-013-1, we require the ERO to develop a Work Plan and submit a compliance filing that will facilitate ongoing collection of the dynamics system modeling and simulation data specified by the deferred MOD-013-1 Reliability Standard, which is necessary for implementation of MOD-012-0."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10276 - Provide a list of faults and disturbances used in performing dynamics system studies for operation and planning.

Para 1178

"Provide a list of faults and disturbances used in performing dynamics system studies for operation and planning."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10277 - Address critical energy infrastructure confidentiality issues as part of the standard development process.

Para 1181

"Address critical energy infrastructure confidentiality issues as part of the standard development process."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10278 - Para 1183 We agree with APPA that the functional entity responsible for providing the fault and disturbance list should be the transmission planner, instead of the transmission owner, as proposed in the NOPR. We also agree with APPA that

Para 1184

"Expand the applicability to include transmission operators, planning authorities, and transmission planners."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10284 - Para 1184 We therefore direct the ERO to add the planning authority to the list of applicable entities.

Para 1184

"1184. We adopt our NOPR proposal that planning authorities should be included in this Reliability Standard because the planning authority is the entity responsible for the coordination and integration of transmission facilities and resource plans, as well as one of the entities responsible for the integrity and consistency of the data. We therefore direct the ERO to add the planning authority to the list of applicable entities."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10281 - Require verification of the dynamic models with actual disturbance data.

Para 1197

"Require verification of the dynamic models with actual disturbance data."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10280 - Permit entities to estimate dynamics stat if they are unable to obtain unit specific information.

Para 1197

"Permit entities to estimate dynamics stat if they are unable to obtain unit specific information."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10282 - The Commission directs the ERO to expand the applicability section in MOD-013-1 to include planning authorities because they are the entities responsible for the coordination and integration of transmission facilities and resource plans.

Para 1199

"1199. We adopt our NOPR proposal and direct the ERO to expand the applicability section in this Reliability Standard to include planning authorities because they are the entities responsible for the coordination and integration of transmission facilities and resource plans, as well as one of the entities responsible for the integrity and consistency of the data."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10283 - Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the dynamics modeling and simulation data specified in this standard.

Para 1200

"Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the dynamics modeling and simulation data specified in this standard."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of

marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10286 - Require models to be validated against actual system response.

Para 1210

"Require models to be validated against actual system response."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10287 - If model output is not within the accuracy required, the model shall be modified to achieve the necessary accuracy.

Para 1211

"If model output is not within the accuracy required, the model shall be modified to achieve the necessary accuracy."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10289 - Develop a work plan that will facilitate ongoing validation of steady-state models and submit a compliance filing to the Commission.

Para 1212

"Develop a work plan that will facilitate ongoing validation of steady-state models and submit a compliance filing to the Commission."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013. NERC intends to submit a compliance filing in 2012.

DIRECTIVE: S- Ref 10288 - Require users, owners, and operators to provide the validated models to regional reliability organizations.

Para 1212

"Require users, owners, and operators to provide the validated models to regional reliability organizations."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10290 - Require actual system events be simulated and dynamics system model output be validated against actual system response.

Para 1220

"Require actual system events be simulated and dynamics system model output be validated against actual system response."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10291 - Require users, owners, and operators to provide the validated models to regional entity.

Para 1221

"Require users, owners, and operators to provide the validated models to regional entity."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTf), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10292 - Develop a work plan that will facilitate ongoing validation of dynamics models and submit a compliance filing to the Commission.

Para 1221

"Develop a work plan that will facilitate ongoing validation of dynamics models and submit a compliance filing to the Commission."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTf), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10293 - Modify the definition of DSM to include any other entities that undertake activities or programs to influence the amount or timing of electricity they use without violating other reliability standards requirements. Paragraph 1232. Supporte

Para 1232

"Modify the definition of DSM to include any other entities that undertake activities or programs to influence the amount or timing of electricity they use without violating other reliability standards requirements. Paragraph 1232. Supported by many commenters, the Commission directs the ERO to modify MOD-016-1 and expand the applicability section to include the transmission planner, on the basis that under the NERC Functional Model the transmission planner is responsible for collecting system modeling data, including actual and forecast load, to evaluate transmission expansion plans. We disagree with EEL that this Reliability Standard should not be applied to the transmission planner because load-related data for controllable DSM is not only needed for distribution and transmission operations, but is also necessary for the transmission planner to take controllable DSM into account in planning the transmission system. Requirement R1.1 relates to data submittal, and requires data to be consistent with that supplied for the TPL-005 and TPL-006 standards, which clearly apply to transmission planners. We approve the EROs definition in the glossary of DSM as all activities or programs undertaken by a Load-Serving Entity or its customers to influence the amount or timing of electricity they use. Only activities or programs that meet the ERO definition, with the modification directed below, may be treated as DSM for purposes of the Reliability Standards. Recognizing the potential role that

industrial customers who do not take service through an LSE and load aggregators, for example, may play in meeting the Reliability Standards, we direct the ERO to modify the definition of DSM. Specifically, we direct the ERO to add to its definition of DSM any other entities that undertake activities or programs to influence the amount or timing of electricity they use without violating other Reliability Standard Requirement."

Assigned: Project 2010-04 - Demand Data

Delivery: Compliance filing to be submitted in 2012

DIRECTIVE: S- Ref 10294 - Expand the applicability to include transmission planners. Paragraph 1224. In the NOPR, the Commission proposed to approve Reliability Standard MOD-016-1 as mandatory and enforceable. In addition, the Commission proposed to direct NERC to

Para 1232

"Expand the applicability to include transmission planners. Paragraph 1224. In the NOPR, the Commission proposed to approve Reliability Standard MOD-016-1 as mandatory and enforceable. In addition, the Commission proposed to direct NERC to submit a modification to MOD-016-1 that expands the applicability section to include the transmission planner."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10299 - we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified under standards that are deferred, and believe there should be no difficulty complying with this Reliability Standard.

Para 1247

"we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified under standards that are deferred, and believe there should be no difficulty complying with this Reliability Standard."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTf), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10295 - Include requirements for reporting of temperature and humidity along with the peak loads. Paragraph 1249. The Commission also directs the ERO to modify the Reliability Standard to require reporting of temperature and humidity along with peak

Para 1249

"Include requirements for reporting of temperature and humidity along with the peak loads. Paragraph 1249. The Commission also directs the ERO to modify the Reliability Standard to require reporting of temperature and humidity along with peak load because actual load must be weather normalized for meaningful comparison with forecasted values.³⁶¹ In response to MidAmericans observation that it sees little value in collecting this data, we believe that collecting it will allow all load data to be weather-normalized, which will provide greater confidence when comparing data accuracy, which ultimately will enhance reliability. As a result, we reject Xcel's proposal that the standard be revised to include only the generic term peak producing weather conditions because it is too generic for a mandatory Reliability Standard."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10300 - We agree, however, with APPA that certain types of load are not sensitive to temperature and humidity. We therefore find that the ERO should address Alcoas concerns in its Reliability Standards development process.

Para 1250

"Para 1250 We also reject Alcoas proposal that the reporting of temperature and humidity along with peak loads should apply only to load that varies with temperature and humidity because it essentially is a request for an exemption from the requirements of the Reliability Standard and should therefore be directed to the ERO as part of the Reliability Standards development process. We agree, however, with APPA that certain types of load are not sensitive to temperature and humidity. We therefore find that the ERO should address Alcoas concerns in its Reliability Standards development process.

Para 1240 Xcel states that in many areas of the country, humidity is not a weather-indicator for peak load. Xcel therefore suggests that instead of including a reporting requirement for humidity, the standard be revised to include a more generic term, such as peak producing weather conditions. Alcoa requests that the Commission clarify that these requirements would only apply to load that varies with temperature and humidity.

(Plus footnote 359: Alcoa states that because its smelting load (the vast majority of its load) does not vary in accordance with temperature and humidity, comparing Alcoa's load forecasts to actual loads taking this information into account would be burdensome without being useful.)

"

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10296 - Reporting of accuracy, error and bias of load forecasts compared to actual loads taking temperature and humidity conditions into account. Paragraph 1251. The Commission adopts the NOPR proposal directing the ERO to modify the Reliability St

Para 1251

"Reporting of accuracy, error and bias of load forecasts compared to actual loads taking temperature and humidity conditions into account. Paragraph 1251. The Commission adopts the NOPR proposal directing the ERO to modify the Reliability Standard to require reporting of the accuracy, error and bias of load forecasts compared to actual loads with due regard to temperature and humidity variations. This requirement will measure the closeness of the load forecast to the actual value. We understand that load forecasting is a primary factor in achieving Reliable Operation. Underestimating load growth can result in insufficient or inadequate generation and transmission facilities, causing unreliability in real-time operations. Measuring the accuracy, error and bias of load forecasts is important information for system planners to include in their studies, and also improves load forecasts themselves."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10297 - Address methods to correct forecasts to minimize prior inaccuracies, errors, and bias. Paragraph 1252. The Commission agrees with APPA that accuracy, error and bias of load forecasts alone will not increase the reliability of load forecast

Para 1252

"Address methods to correct forecasts to minimize prior inaccuracies, errors, and bias. Paragraph 1252. The Commission agrees with APPA that accuracy, error and bias of load forecasts alone will not increase the reliability of load forecasts, and, as a result, will not affect system reliability. Understanding of the differences without action based on that understanding would not change anything. Therefore, we direct the ERO to add a Requirement that addresses correcting forecasts based on prior inaccuracies, errors and bias."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10298 - Expand the applicability to include transmission planners. Paragraph 1257. The Commission approves Reliability Standard MOD-017-0 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to MOD-01

Para 1255

"Expand the applicability to include transmission planners. Paragraph 1257. The Commission approves Reliability Standard MOD-017-0 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to MOD-017-0 through the Reliability Standards development process that includes requirements for: (1) reporting of temperature and humidity along with the peak loads; (2) reporting of accuracy, error and bias of load forecasts compared to actual loads taking temperature and humidity variations into account; (3) addressing methods to correct forecasts to minimize prior inaccuracies, errors and bias and (4) including the transmission planner in the applicability section."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10302 - The Commission therefore directs the ERO to consider MISOs concerns in the Reliability Standards development process.

Para 1256 Sen 3

"Para 1256

The Commission disagrees in general with MISOs recommendation to allow some exceptions to the requirement to provide hourly demand data. However, the metering for some customer classes may not be designed to provide certain types of data. The Commission therefore directs the ERO to consider MISOs concerns in the Reliability Standards development process.

Para 1245

MISO recommends that the Commission direct NERC to change the requirement of this standard so that aggregated actual hourly demand data (at the balancing authority level) are to be provided within 30 calendar days of a request from NERC. MISO believes that load aggregated at this level should be sufficient for the modeling activities associated with system reliability. MISO understands that hourly data is collected by those utilities that have balancing authority responsibilities, and that these utilities can report aggregated hourly loads for their responsibility area within 30 days. MISO notes that some balancing authority utilities provide energy services to smaller municipal or distribution cooperative utilities where the metering system records only the peak demand and total energy supplied over approximately 30 days. MISO cautions that the balancing authority will usually have hourly data for demand and energy within a segment of the network, but may have no hourly metering on a specific customer served by that segment.

"

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10303 - Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred. Paragraph 1264. As an initial matter, we disagree that MOD-018-0 cannot be implemented because it is dependent on

Para 1264

"Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred. Paragraph 1264. As an initial matter, we disagree that MOD-018-0 cannot be implemented because it is dependent on various unapproved standards. As previously stated, we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified for standards that are deferred, and believe there should be no difficulties complying with this Reliability Standard. We reiterate that ongoing collection of data is necessary to maintain system reliability, and approval of MOD-018-0 will help to achieve this goal."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Delivery: Compliance filing to be submitted in 2012

DIRECTIVE: S- Ref 10304 - Regarding TAPs concern that small entities should not be required to comply with MOD-018-0 because their forecasts are not significant for system reliability purposes, the Commission directs the ERO to address this matter in the Reliability

Para 1265

"Regarding TAPs concern that small entities should not be required to comply with MOD-018-0 because their forecasts are not significant for system reliability purposes, the Commission directs the ERO to address this matter in the Reliability Standards development process"

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10305 - Require users, owners, and operators to provide to the regional entity information related to forecasts of interruptible demands and direct control load management. Paragraph 1275. As an initial matter, we disagree that MOD-019-0 cannot be

Para 1275

"Require users, owners, and operators to provide to the regional entity information related to forecasts of interruptible demands and direct control load management. Paragraph 1275. As an initial matter, we disagree that MOD-019-0 cannot be implemented because it is dependent on MOD-016-0, which further depends on various unapproved standards. As previously stated, we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified under related standards that are deferred, and believe there should be no difficulties complying with this Reliability Standard. We reiterate that ongoing collection of data is necessary to maintain system reliability, and approval of MOD-019-0 will help to achieve this goal. We therefore direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity information related to forecasts of interruptible demands and direct control load management."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10306 - Require reporting of the accuracy, error, bias of controllable load forecasts. Paragraph 1276. The Commission adopts the NOPR proposal directing the ERO to modify this standard to require reporting of the accuracy, error and bias of contro

Para 1276

"Require reporting of the accuracy, error, bias of controllable load forecasts. Paragraph 1276. The Commission adopts the NOPR proposal directing the ERO to modify this standard to require reporting of the accuracy, error and bias of controllable load forecasts. This requirement will enable planners to get a more reliable picture of the amount of controllable load that is actually available, therefore allowing planners to conduct more accurate system reliability assessments. The Commission finds that controllable load can be as reliable as other resources, and therefore should also be subject to the same reporting requirements. Although we recognize that verifying load control devices and interruptible loads may be complex, we do not believe that it is overly so. Further, we believe that the ERO, through its Reliability Standards development process can develop innovative solutions to the Commissions concern. We also note that EEI is concerned about such testing at times of peak load. We clarify that we are not requiring the testing to be conducted at peak load conditions. Consequently, we reject the proposals of EEI, FirstEnergy and International Transmission to discard the requirement for reporting of the accuracy, error and bias of controllable load forecasts."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10307 - Analyze differences between actual and forecasted demands for five years of actual controllable load and identify what corrective actions should be taken to approve controllable load forecasting for the 10-year planning horizon. Paragraph

Para 1277

"Analyze differences between actual and forecasted demands for five years of actual controllable load and identify what corrective actions should be taken to approve controllable load forecasting for the 10-year planning horizon. Paragraph 1277. We direct the ERO to include APPAs proposal in the Reliability Standards development process to add a new requirement to MOD-019-0 that would oblige resource planners to analyze differences between actual and forecasted demands for the five years of actual controllable load and identify what corrective actions should be taken to improve controllable load forecasting for the 10-year planning horizon."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10308 - Require reporting of the accuracy, error, and bias of controllable load forecasts. Paragraph 1289. The Commission approves Reliability Standard MOD-020-0 as mandatory and enforceable and directs the ERO to develop a modification to MOD-020

Para 1287

"Require reporting of the accuracy, error, and bias of controllable load forecasts. Paragraph 1289. The Commission approves Reliability Standard MOD-020-0 as mandatory and enforceable and directs the ERO to develop a modification to MOD-020-0 through the Reliability Standards development process to require reporting of the accuracy, error and bias of controllable load forecasts."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10309 - The Commission directs the ERO to provide a Work Plan and compliance filing regarding collection of information specified under related standards that are deferred.

Para 1297

"As an initial matter, we disagree that MOD-021-0 cannot be implemented because it is based on MOD-016-0, and through it on various unapproved standards, which creates an implementation problem. As previously stated, we direct the ERO to provide a Work Plan and compliance filing regarding collection of information specified under related standards that are deferred, and believe there should be no difficulty complying with this Reliability Standard. We reiterate that ongoing collection of data is necessary to maintain system reliability, and approval of MOD-21-0 will help to achieve this goal. Therefore, we direct the ERO to use its authority pursuant to section 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the information required by this Reliability Standard.

"

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10313 - Therefore, we direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the information required by this Reliability Standard

Para 1297

"Therefore, we direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the information required by this Reliability Standard"

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

DIRECTIVE: S- Ref 10311 - Allow resource planners to analyze the causes of differences between actual and forecasted demands, and identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Paragraph 1298. We ag

Para 1298

"Allow resource planners to analyze the causes of differences between actual and forecasted demands, and identify any corrective actions that should be taken to improve forecasted

demand responses for future forecasts. Paragraph 1298. We agree with FirstEnergy and SMA that standardization of principles on reporting and validating DSM program information will provide consistent and uniform evaluation of demand response to facilitate system operator confidence in relying on such resources, which will further increase accuracy of transmission system reliability assessment and consequently enhance overall reliability. We direct the ERO to modify this Reliability Standard to allow resource planners to analyze the causes of differences between actual and forecasted demands, and to identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Therefore, we adopt the NOPR proposal and direct the ERO to modify MOD-021-0 by adding a requirement for standardization of principles on reporting and validating DSM program information."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10310 - Standardize principles on reporting and validation of DSM program information. Paragraph 1298. We agree with FirstEnergy and SMA that standardization of principles on reporting and validating DSM program information will provide consistent

Para 1298

"Standardize principles on reporting and validation of DSM program information. Paragraph 1298. We agree with FirstEnergy and SMA that standardization of principles on reporting and validating DSM program information will provide consistent and uniform evaluation of demand response to facilitate system operator confidence in relying on such resources, which will further increase accuracy of transmission system reliability assessment and consequently enhance overall reliability. We direct the ERO to modify this Reliability Standard to allow resource planners to analyze the causes of differences between actual and forecasted demands, and to identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Therefore, we adopt the NOPR proposal and direct the ERO to modify MOD-021-0 by adding a requirement for standardization of principles on reporting and validating DSM program information."

Assigned: Project 2010-04 - Demand Data

DIRECTIVE: S- Ref 10312 - Modify the title and purpose statement to remove the word controllable. Paragraph 1300. The Commission directs the ERO to modify the title and purpose statement to remove the word controllable. We note that no commenter disagrees.

Para 1300

"Modify the title and purpose statement to remove the word controllable. Paragraph 1300. The Commission directs the ERO to modify the title and purpose statement to remove the word controllable. We note that no commenter disagrees."

Assigned: Project 2010-12 - Order 693 Directives

Words removed.

Status: Filed Delivery: 2010

Solution Details:

Words removed.

DIRECTIVE: S- Ref 10317 - Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred.

Para 1308

"The Commission will not approve or remand MOD-024-1 until the ERO submits additional information. In order to continue verifying and reporting gross and net real power generating capability needed for reliability assessment and future plans, we direct the ERO to develop a Work Plan and submit a compliance filing."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on

their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10315 - Document test conditions and the relationships between test conditions and generator output so that the amount of power that can be expected to be delivered from a generator at different conditions can be determined.

Para 1310

"Document test conditions and the relationships between test conditions and generator output so that the amount of power that can be expected to be delivered from a generator at different conditions can be determined."

Assigned: Project 2007-09 - Generator Verification

This issue is addressed through use of ambient data collection method that is proposed in the revision of MOD-024. Current drafting team to complete.

Status: In Drafting Delivery: 2013

Solution Details:

This issue is addressed through use of ambient data collection method that is proposed in the revision of MOD-024. Current drafting team to complete.

DIRECTIVE: S- Ref 10318 - Similarly, we respond to Constellation that any modification of the Levels of Non-Compliance in this Reliability Standard should be reviewed in the ERO Reliability Standards development process.

Para 1310

"Similarly, we respond to Constellation that any modification of the Levels of Non-Compliance in this Reliability Standard should be reviewed in the ERO Reliability Standards development process."

Assigned: Project 2007-09 - Generator Verification

The team has developed Violation Severity Levels that comport with the requirements of the standard as well as NERC and FERC guidelines.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed Violation Severity Levels that comport with the requirements of the standard as well as NERC and FERC guidelines.

DIRECTIVE: S- Ref 10316 - Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net real power capability verification within 30 calendar days of approval. The confusion centers on approval and when the 3

Para 1311

"Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net real power capability verification within 30 calendar days of approval. The confusion centers on approval and when the 30-day period starts."

Assigned: Project 2007-09 - Generator Verification

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications. The RRO is no longer in the standards.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications. The RRO is no longer in the standards.

DIRECTIVE: S- Ref 10314 - Require users, owners, and operators of the system to provide this information.

Para 1312

"The Commission neither accepts nor remands MOD-024-1 until the ERO submits additional information. Although the Commission did not propose any action with regard to MOD-024-1, it

addressed above a number of concerns regarding the Reliability Standard. We therefore direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide this information. In the interim, compliance with MOD-024-0 should continue on a voluntary basis, and the Commission considers compliance with it to be a matter of good utility practice."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10321 - Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred.

Para 1320

"Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

DIRECTIVE: S- Ref 10319 - Require verification of reactive power capability at multiple points over a units operating range.

Para 1321

"Require verification of reactive power capability at multiple points over a units operating range."

Assigned: Project 2007-09 - Generator Verification

The team has developed Attachment 1 with proper guidance on the verification process and the tests to be conducted.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed Attachment 1 with proper guidance on the verification process and the tests to be conducted.

Language is also included to provide exceptions based on unit or system limitations.

DIRECTIVE: S- Ref 10320 - Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net reactive power capability verification within 30 calendar days of approval. The confusion centers on approval and when the

Para 1322

"Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net reactive power capability verification within 30 calendar days of approval. The confusion centers on approval and when the 30-day period starts."

Assigned: Project 2007-09 - Generator Verification

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications. The RRO is no longer in the standards.

DIRECTIVE: S- Ref 10322 - Identify the expectations of the training for each job function/position.

Para 1343

"Identify the expectations of the training for each job function/position."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is in prep for filing with FERC. The training programs are required to be designed based on individual company-specific reliability-related tasks.

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and filed with FERC. The training programs are required to be designed based on individual company-specific reliability-related tasks.

DIRECTIVE: S- Ref 10330 - Thus, in addition to modifying the Reliability Standard to identify generator operators as applicable entities, we direct the ERO to develop specific Requirements addressing the scope, content and duration appropriate for generator operator

Para 1363

"Para 1363 Further, the Commission agrees with MidAmerican, SDG&E and others that the experience and knowledge required by transmission operators about Bulk-Power System operations goes well beyond what is needed by generation operators; therefore, training for generator operators need not be as extensive as that required for transmission operators. Accordingly, the training requirements developed by the ERO should be tailored in their scope, content and duration so as to be appropriate to generation operations personnel and the objective of promoting system reliability. Thus, in addition to modifying the Reliability Standard to identify generator operators as applicable entities, we direct the ERO to develop specific Requirements addressing the scope, content and duration appropriate for generator operator personnel.

Para 1359 The Commission explained in the NOPR that transmission operators and balancing authorities are not the only entities that have operating personnel in positions that directly impact the reliable operation of the Bulk-Power System; and included generator operators among those that have such an impact. Xcel and others oppose extending the applicability of PER-002-0 to generator operators, because they take directions from balancing authorities and others, which limits their ability to impact reliability. Although a generator may be given direction from the balancing authority, it is essential that generator operator personnel have appropriate training to understand those instructions, particularly in an emergency situation in which instructions may be succinct and require immediate action. Further, if communication is lost, the generator operator personnel should have had sufficient training to take appropriate action to ensure reliability of the Bulk-Power System. Thus, we direct the ERO to develop a modification to make PER-002-0 applicable to generator operators.

"

Assigned: Project 2010-01 - Support Personnel Training

Future project

Status: In Drafting Delivery: 2014

Solution Details:

Future project

DIRECTIVE: S- Ref 10328 - Consider FirstEnergys comments regarding the nuclear plant operators training program as part of the standards development process.

Para 1364

"Consider FirstEnergys comments regarding the nuclear plant operators training program as part of the standards development process."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is in prep for filing with FERC. PER-005 requires the use of simulation technology/simulators for certain entities based on IROLs.

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and is in prep for filing with FERC. PER-005 requires the use of simulation technology/simulators for certain entities based on IROLs.

DIRECTIVE: S- Ref 10323 - Expand the applicability section to include reliability coordinators, local transmission control center operating personnel, generator operators centrally-located at a generator control center with direct impact on the reliable operation of

Para 1372

"Expand the applicability section to include reliability coordinators, local transmission control center operating personnel, generator operators centrally-located at a generator control center with direct impact on the reliable operation of the bulk power system, and operations planning and operations support staff that carry out outage planning and assessments and those who develop SOLs, IROLs, or operating nomograms."

Assigned: Project 2010-01 - Support Personnel Training

DIRECTIVE: S- Ref 10327 - Consider whether personnel that support EMS applications should be included in the mandatory training requirements.

Due 8/23/2012

Para 1373

"Consider whether personnel that support EMS applications should be included in the mandatory training requirements."

Assigned: Project 2010-01 - Support Personnel Training

DIRECTIVE: S- Ref 10329 - Training programs for operations planning and operations support staff must be tailored to the needs of the function, the tasks performed and personnel involved.

Para 1375

"Training programs for operations planning and operations support staff must be tailored to the needs of the function, the tasks performed and personnel involved."

Assigned: Project 2010-01 - Support Personnel Training

DIRECTIVE: S- Ref 10326 - Determine the feasibility of developing meaningful performance metrics associated with the effectiveness of the training programs.

Para 1379

"Determine the feasibility of developing meaningful performance metrics associated with the effectiveness of the training programs."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is has been filed with FERC. The drafting team determined it is not necessary to develop performance metrics associated with the effectiveness of the training programs, beyond those inherently included in

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and is has been filed with FERC. The drafting team determined it is not necessary to develop performance metrics associated with the effectiveness of the training programs, beyond those inherently included in a systematic approach to training (SAT). A SAT process includes evaluation against stated objectives.

DIRECTIVE: S- Ref 10324 - Use the systematic approach to training methodology in the development of new training programs.

Para 1382

"Use the systematic approach to training methodology in the development of new training programs."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is in prep for filing with FERC. PER-005 requires the use of SAT.

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and is in prep for filing with FERC. PER-005 requires the use of SAT.

DIRECTIVE: S- Ref 10331 - Para 1391 This does not mean that these entities must develop and maintain full-scale simulators but rather they should have access to training on simulators. Further, because the cost is likely to outweigh the reliability benefits for sm

Para 1391

"Include the use of simulators by reliability coordinators, transmission operators, and balancing authorities that have operational control over a significant portion of load and generation."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is in prep for filing with FERC. PER-005 requires the use of simulation technology/simulators for certain entities based on IROLs.

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and is in prep for filing with FERC. PER-005 requires the use of simulation technology/simulators for certain entities based on IROLs.

DIRECTIVE: S- Ref 10332 - The Commission notes that no commenters specifically addressed the proposed modifications directing the ERO to expand the Applicability section to include reliability coordinators, and to identify the expectations of the training for each j

Para 1392

"The Commission notes that no commenters specifically addressed the proposed modifications directing the ERO to expand the Applicability section to include reliability coordinators, and to identify the expectations of the training for each job function and develop training programs tailored to each job function with consideration of the individual training needs of the personnel. However, in responding to the proposals to expand the applicability of the Reliability Standard, many commenters acknowledged the need to have clear training expectations and training programs tailored to specific job functions. The Commission finds that these two modifications will enhance the training by focusing on expectations and tailoring the training to specific job functions; therefore, the Commission adopts these modifications to the Reliability Standard"

Assigned: Project 2006-01 - System Personnel Training

The standard includes the Reliability Coordinator as an applicable entity. The standard in Requirement R1 requires the development of a company- specific reliability-related task list which is used to develop a training program.

Status: Regulator Approved Delivery: 2010

Solution Details:

Issues database unclear

DIRECTIVE: S- Ref 10334 - Consider grandfathering certification requirements for transmission operator personnel as part of the standards development process.

Due 2/17/2011

Para 1407

"Consider grandfathering certification requirements for transmission operator personnel as part of the standards development process."

Assigned: Project 2007-04 - Certifying System Operators

The SDT considered grandfathering, but has determined that it could be detrimental to the reliability of the BES.

Status: Filed Delivery: 2011

Solution Details:

The SDT considered grandfathering, but has determined that it could be detrimental to the reliability of the BES. Current drafting team to complete

DIRECTIVE: S- Ref 10333 - Specify the minimum competencies that must be demonstrated to become and remain a certified operator.

Due 2/17/2011

Para 1408

"Specify the minimum competencies that must be demonstrated to become and remain a certified operator."

Assigned: Project 2007-04 - Certifying System Operators

Standard PER-003-1 states what areas an operator needs to be able to demonstrate competency.

Status: Filed Delivery: 2011

Solution Details:

The draft standard PER-003-1 states what areas an operator needs to be able to demonstrate competency in. Current drafting team to complete

DIRECTIVE: S- Ref 10335 - Include formal training requirements for reliability coordinators similar to those addressed under PER-002.

Para 1415

"Include formal training requirements for reliability coordinators similar to those addressed under PER-002."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is in prep for filing with FERC. The new standard is applicable to RCs, TOs and BAs.

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and is in prep for filing with FERC. The new standard is applicable to RCs, TOs and BAs.

DIRECTIVE: S- Ref 10338 - With regard to APPAs comments, consistent with our discussion above regarding Measures and Levels of Non-Compliance, we leave it to the discretion of the ERO whether it is necessary that each Requirement of this Reliability Standard have a corresponding M

Due 2/17/2011

Para 1416 Sen 1

"Par 1416

With regard to APPAs comments, consistent with our discussion above regarding Measures and Levels of Non-Compliance, we leave it to the discretion of the ERO whether it is necessary that each Requirement of this Reliability Standard have a corresponding Measure.

Para 1412

APPA notes that the revised Reliability Standard PER-004-1 filed by NERC on November 15, 2006 partially fulfills the directive to include Measures and Levels of Non-Compliance. It states that NERC should be directed to include Measures and Levels of Non-Compliance related to all Requirements.

"

Assigned: Project 2007-04 - Certifying System Operators

Standard PER-003-1 has compliance levels.

Status: Filed Delivery: 2011

Solution Details:

Standard PER-003-1 has compliance levels. The method to show compliance is the same for all three of the Requirements so only one measure is used in the Standard. The Requirements are written as binary and therefore only one VSL is used in the Standard.

DIRECTIVE: S- Ref 10336 - Consider the suggestions of FirstEnergy and Xcel as part of the standards development process.

Para 1417

"Consider the suggestions of FirstEnergy and Xcel as part of the standards development process."

Assigned: Project 2006-01 - System Personnel Training

The new standard has been approved by the BOT and is in prep for filing with FERC. First Energy seeks to revise ""shall have a comprehensive understanding and shall have extensive knowledge..."". This language is not in PER-005-1. Xcel suggests that

Status: Filed Delivery: 2009

Solution Details:

The new standard has been approved by the BOT and is in prep for filing with FERC. First Energy seeks to revise "shall have a comprehensive understanding and shall have extensive knowledge...". This language is not in PER-005-1. Xcel suggests that the emergency training requirements be expressed in hour increments rather than days. PER-005 Requirement 3 language includes 32 hours, replacing 5 days.

DIRECTIVE: S- Ref 10337 - Include requirements pertaining to personnel credentials for reliability coordinators similar to PER-003.

Due 2/17/2011

Para 1417 Sen 3 Item 2

"1417. We find that the Reliability Standard adequately addresses reliability coordinator staffing. Accordingly, the Commission approves Reliability Standard PER-004-1. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification through the Reliability Standards development process to PER-004-1 that: (1) includes formal training requirements for reliability coordinators similar to those addressed under the personnel training Reliability Standard PER-002-0 and (2) includes requirements pertaining to personnel credentials for reliability coordinators similar to those in PER-003-0. Further, we direct the ERO to consider the suggestions of FirstEnergy and Xcel in the Reliability Standards development process."

Assigned: Project 2007-04 - Certifying System Operators

Standard PER-003-1 states what credentials are needed to perform each function of a RC, TO or BA.

Status: Filed Delivery: 2011

Solution Details:

Draft standard PER-003-1 states what credentials are needed to perform each function of a RC, TO or BA.

DIRECTIVE: S- Ref 10339 - Clarify the term corrective action. 1440. We believe that [t]he transmission operator shall take corrective action as soon as possible refers to transmission operators taking operator control actions. It does not refer to troubleshooting

Para 1441

"Clarify the term corrective action. 1440. We believe that [t]he transmission operator shall take corrective action as soon as possible refers to transmission operators taking operator control actions. It does not refer to troubleshooting, repairing or replacing failed relays or equipment, etc., since these time-consuming corrective actions would prolong the risk of cascading failures to the Bulk-Power System. 1441. We direct the ERO to clarify the term corrective action consistent with this discussion when it modifies PRC-001-1 in the Reliability Standards development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

Status: In Drafting Delivery: 2012

Solution Details:

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

DIRECTIVE: S- Ref 10340 - Consider FirstEnergy's and the California PUCs comments about the maximum time for corrective actions in the standards development process. 1428. California PUC contends that imposing a time restriction for returning a system to a stable state

Para 1444

"Consider FirstEnergy's and the California PUCs comments about the maximum time for corrective actions in the standards development process. 1428. California PUC contends that imposing a time restriction for returning a system to a stable state may cause more harm than good since additional information and options may be available as time elapses. It repeats its suggestion from its earlier comments on the Staff Preliminary Assessment and proposes the following alternative language: Transmission or generation operators shall carry out corrective control actions, i.e., returning the system to a stable state that respects system requirements as soon as possible, and no longer than 30 minutes, except where a longer response time is feasible, or where a longer response is demonstrated to produce a better ultimate solution without unacceptable interim risk. 1431. FirstEnergy contends that Requirement R2.1 essentially requires generator operators to report all protective relay or equipment failures, since generator operators may not be able to tell which failures will reduce system reliability. FirstEnergy suggests that R2.1 should be revised to require generator operators to report all equipment failures or outages. FirstEnergy further suggests that PRC-001-1 be revised to provide

that if a company performs reasonable testing procedures, undiscoverable equipment failures will not be violations of R2.1."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

Status: *In Drafting* Delivery: 2012

Solution Details:

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

The Transmission Operator is the true functional entity responsible here.

Covered as part of the new data specification requirements in proposed TOP-003-2.

DIRECTIVE: S- Ref 10342 - Para 1445. In response to MidAmericans request that we clarify the term immediately in our proposed second directive, we direct the ERO, in the Reliability Standards development process, to determine the appropriate amount of time after the

Para 1445

"1445. In response to MidAmericans request that we clarify the term immediately in our proposed second directive, we direct the ERO, in the Reliability Standards development process, to determine the appropriate amount of time after the detection of relay failures, in which relevant transmission operators must be informed of such failures."

Assigned: Project 2007-03 - Real-Time Transmission Operations

See proposed TOP-003-2

Status: *In Drafting* Delivery: 2012

Solution Details:

See proposed TOP-003-2

DIRECTIVE: S- Ref 10341 - Upon detection of failures in relays or protection system elements on the bulk power system that threaten reliability, relevant transmission operators must be informed promptly, but within a specified period of time. -- (2) a requirement t

Para 1445

"Upon detection of failures in relays or protection system elements on the bulk power system that threaten reliability, relevant transmission operators must be informed promptly, but within a specified period of time. -- (2) a requirement that transmission and generator operators be informed immediately upon the detection of failures in relays or protection system elements on the Bulk-Power System that would threaten reliable operation, so that these entities could carry out appropriate corrective control actions consistent with those used in mitigating IROL violations."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Covered as part of the new data specification requirements in proposed TOP-003-2.

Status: *In Drafting* Delivery: 2012

Solution Details:

Covered as part of the new data specification requirements in proposed TOP-003-2.

DIRECTIVE: S- Ref 10344 - Para's 1420 & 1449. Measures and levels of non-compliance incorrectly reference non-existent requirements.

Due 3/22/2013

Para 1446

"1420 & 1449. Measures and levels of non-compliance incorrectly reference non-existent requirements.

1420. In the NOPR, the Commission proposed to approve PRC-001-0 as mandatory and enforceable. In addition, the Commission proposed to direct NERC to submit modifications to PRC-001-0 (proposed directives) that included: (1) Measures and Levels of Non-Compliance...

1423. APPA states that while it agrees that PRC-001-1 is sufficient for approval, since the new Measures only partially address the Requirements, and in some cases refer to non-existent Requirements, no penalties should be levied for violations of Requirements that have no accompanying Measures.

1446. We agree with APPA that the added Measures and Levels of Non-Compliance incorrectly reference non-existent requirements. We direct the ERO to revise the references accordingly.

1449. The Commission approves Reliability Standard PRC-001-1 as mandatory and enforceable. In addition, the Commission directs the ERO to develop modifications to PRC-001-1 through the Reliability Standards development process that: (1) correct the references for Requirements and...

"

Assigned: Project 2007-06 - System Protection Coordination

The DT is re-writing the measures and replacing levels of non-compliance with VSLs and correcting any references.

Status: In Drafting Delivery: 2013

Solution Details:

The DT is re-writing the measures and replacing levels of non-compliance with VSLs and correcting all references.

DIRECTIVE: S- Ref 10343 - Para 1420. Once informed, transmission operators must carry out corrective control actions that return the system to a stable state that respects system requirements as soon as possible and no longer than 30 minutes. 1440. [t]he transmissi

Para 1449

"1420. Once informed, transmission operators must carry out corrective control actions that return the system to a stable state that respects system requirements as soon as possible and no longer than 30 minutes. 1440. [t]he transmission operator shall take corrective action as soon as possible refers to transmission operators taking operator control actions. It does not refer to troubleshooting, repairing or replacing failed relays or equipment, etc., since these time-consuming corrective actions would prolong the risk of cascading failures to the Bulk-Power System."

Assigned: Project 2007-03 - Real-Time Transmission Operations

TOP-001-2, R11

Status: In Drafting Delivery: 2012

Solution Details:

TOP-001-2, R11

DIRECTIVE: S- Ref 10345 - Consider if greater consistency can be achieved in the standard as suggested by Otter Tail, APPA, and Alcoa.

Para 1456

"Par 1456

We agree with APPA, Alcoa and Otter Tail that the ERO should consider whether greater consistency can be achieved in this Reliability Standard. In Order No. 672, the Commission also encouraged greater uniformity in the development of Reliability Standards. Consistent with that goal, the Commission directs the ERO to consider APPA, Alcoa and Otter Tails suggestions in the Reliability Standards development process as it modifies PRC-002-1 to provide missing information needed for the Commission to act on this Reliability Standard.

Para 1452 thru 1454

APPA agrees with the Commissions proposed course of action. It states that there are significant and substantive differences between regional procedures due to the characteristics of various regional grids. Further it suggests that NERC and the Regional Entities consider whether they can attain greater consistency on an Interconnection-wide basis in addressing the completion of this Reliability Standard.

Alcoa suggests that the ERO instead of a Regional Entity should define the requirements for DME and the type of report it generates. The requirements and equipment specifications should be consistent throughout North America. In addition, Alcoa suggests that the criteria for installation of such equipment should include the necessary monitoring and recording that contribute to analysis and enhance reliability.

Otter Tail suggests that PRC-002-1 should be developed on an Interconnection-wide basis to ensure consistency and promote reliability of the Bulk-Power System.

"

Assigned: Project 2007-11 - Disturbance Monitoring

The team is conducting an analysis to determine the locations as best supported by technical data. Current drafting team to complete

Status: In Drafting Delivery: 2015

Solution Details:

The team is conducting an analysis to determine the locations as best supported by technical data. Current drafting team to complete

DIRECTIVE: S- Ref 10346 - Consider if greater consistency can be achieved in the standard as suggested by APPA.

Para 1461

"Consider if greater consistency can be achieved in the standard as suggested by APPA."

Assigned: Project 2010-05.1 - Phase 1 of Protection Systems: Misoperations

Greater consistency has been provided by establishing the core elements that must be included in any entity's procedure for identifying and correcting Protection System Misoperations.

Status: In Drafting Delivery: 2012

Solution Details:

Greater consistency has been provided by establishing the core elements that must be included in any entity's procedure for identifying and correcting Protection System Misoperations. Additionally, further consistency has been created by specifying the format for periodic compliance reporting.

DIRECTIVE: S- Ref 10350 - The regional entity should develop procedures for corrective action plans.

Para 1469

"The regional entity should develop procedures for corrective action plans."

Assigned: Project 2010-12 - Order 693 Directives

TBD

Status: Filed Delivery: 2010

Solution Details:

TBD

DIRECTIVE: S- Ref 10349 - Consider ISO-NEs suggestion that LSEs and transmission operators should be listed as applicable entities.

Para 1469

"Consider ISO-NEs suggestion that LSEs and transmission operators should be listed as applicable entities."

Assigned: Project 2010-05.1 - Phase 1 of Protection Systems: Misoperations

LSE and transmission operators do not own BES Protection Systems or apparatus. The owners of the equipment have been assigned responsibility for this standard.

Status: In Drafting Delivery: 2012

Solution Details:

LSE and transmission operators do not own BES Protection Systems or apparatus. The owners of the equipment have been assigned responsibility for this standard.

DIRECTIVE: S- Ref 10351 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system. 1

Due 4/10/2012

Para 1475

"1475. In addition, for the reasons discussed in the NOPR, the Commission directs the ERO to develop a modification to PRC-005-1 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 2 for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 2 for time-based programs. Also adding a requirement allowing performance-based maintenance intervals.

DIRECTIVE: S- Ref 10352 - Consider FirstEnergys and ISO-NEs suggestions to combine PRC-005, PRC-008, PRC-011, and PRC-017 into a single standard.

Para 1475

"Consider FirstEnergys and ISO-NEs suggestions to combine PRC-005, PRC-008, PRC-011, and PRC-017 into a single standard."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

These suggestions were adopted. The SDT is combining the four legacy standards into one.

Status: In Drafting Delivery: 2012

Solution Details:

These suggestions were adopted. The SDT is combining the four legacy standards into one.

DIRECTIVE: S- Ref 10353 - Transfer responsibility from the regional reliability organization to the regional entity.

Para 1480

"Transfer responsibility from the regional reliability organization to the regional entity."

Assigned: Project 2007-01 - Underfrequency Load Shedding

The standard is not assigning requirements to the RE's but rather the PCs REs are not users, owners, operators of the BES.

Current drafting team to complete

Status: Filed Delivery: 2011

Solution Details:

The standard is not assigning requirements to the RE's but rather the PCs REs are not users, owners, operators of the BES. Current drafting team to complete

DIRECTIVE: S- Ref 10355 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Due 4/10/2012

Para 1492

"1492. In addition, the Commission directs the ERO to develop a modification to PRC-008-0 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 3 for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 3 for time-based programs. Also adding a requirement allowing performance-based maintenance intervals.

DIRECTIVE: S- Ref 10356 - Require that an integrated and coordinated approach be included in all protection systems on the bulk power system, including generators and transmission lines, generators low-voltage ride-through capabilities, and UFLS and UVLS systems. P

Para 1509

"Require that an integrated and coordinated approach be included in all protection systems on the bulk power system, including generators and transmission lines, generators low-voltage ride-through capabilities, and UFLS and UVLS systems. Paragraph 1509. We appreciate MEAGs feedback to our response in the NOPR. For the reasons discussed in the NOPR, as well as our explanation above, the Commission approves Reliability Standard PRC-010-0 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to PRC-010-0 through the Reliability Standards development process that requires that an integrated and coordinated approach be included in all protection systems on the Bulk-Power System, including generators and transmission lines, generators low voltage ride-through capabilities, and UFLS and UVLS programs."

Assigned: Project 2008-02 - Undervoltage Load Shedding

Project is in SAR development phase. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Current drafting team to complete

DIRECTIVE: S- Ref 10358 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Due 4/10/2012

Para 1516

"1516. The Commission believes that the proposal is presently part of the process. The Commission approves Reliability Standard PRC-011-0 as mandatory and enforceable. In addition, the Commission directs the ERO to submit a modification to PRC-011-0 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, Table 2, and Table 3 for time-based programs.

Status: *In Drafting* Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, Table 2, and Table 3 for time-based programs. Also adding a requirement allowing performance-based maintenance intervals.

DIRECTIVE: S- Ref 10359 - Consider APPAs suggestions for interconnection-wide consistency in the standards development process.

Para 1520

"Consider APPAs suggestions for interconnection-wide consistency in the standards development process."

Assigned: Project 2010-05.2 - Phase 2 of Protection Systems: SPS and RAS

DIRECTIVE: S- Ref 10360 - Consider APPAs suggestions for interconnection-wide consistency in the standards development process.

Para 1524

"Consider APPAs suggestions for interconnection-wide consistency in the standards development process."

Assigned: Project 2010-03 - Modeling Data

DIRECTIVE: S- Ref 10361 - Consider APPAs suggestions for interconnection-wide consistency in the standards development process.

Para 1528

"Consider APPAs suggestions for interconnection-wide consistency in the standards development process."

Assigned: Project 2010-05.2 - Phase 2 of Protection Systems: SPS and RAS

DIRECTIVE: S- Ref 10363 - Require that documentation identified in requirement R2 be routinely provided to NERC or the regional entity. that includes: (1) and (2) a requirement that documentation identified in Requirement R2 shall be routinely provided to the ERO

Due 12/31/2014

Para 1546

"Require that documentation identified in requirement R2 be routinely provided to NERC or the regional entity. that includes: (1) and (2) a requirement that documentation identified in Requirement R2 shall be routinely provided to the ERO or Regional Entity"

Assigned: Project 2010-05.2 - Phase 2 of Protection Systems: SPS and RAS

DIRECTIVE: S- Ref 10362 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Para 1546

"Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard for time-based programs. Specific minimum maintenance intervals are prescribed in Tables 1-1 through 1-5, Table 2, and Table 3.

DIRECTIVE: S- Ref 10364 - Consider FirstEnergy's suggestions to revise requirement R1.3 as part of the standards development process. Paragraph 1564. FirstEnergy comments that Requirement R1.3 requires a simulation of the event, if deemed appropriate by the RRO and

Para 1566

"Consider FirstEnergy's suggestions to revise requirement R1.3 as part of the standards development process. Paragraph 1564. FirstEnergy comments that Requirement R1.3 requires a simulation of the event, if deemed appropriate by the RRO and believes that the applicable entities such as transmission operators may not be able to simulate large system events. FirstEnergy suggests that Requirement R1.3 be revised to state that a simulation of the event, if deemed appropriate, and assisted by the [regional reliability organization]."

Assigned: Project 2008-02 - Undervoltage Load Shedding

Project is in SAR development phase. Future phase

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Future phase

DIRECTIVE: S- Ref 10367 - Consider adding other measures and levels of non-compliance.

Para 1580

"Consider adding other measures and levels of non-compliance."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Measures and VSL have been assigned to all requirements.

Status: In Drafting Delivery: 2012

Solution Details:

Measures and VSL have been assigned to all requirements.

DIRECTIVE: S- Ref 10368 - Clarify the definition of emergency and define the criteria for entering into the various states. Also define the authority for declaring these states.

Para 1585

"Clarify the definition of emergency and define the criteria for entering into the various states. Also define the authority for declaring these states."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The RTOSDT feels that the TOP-001 standard should be restricted to Transmission System operations and that definition of operating states more correctly belong in EOP-001 as pointed out in Order 693, paragraph 560...

Status: In Drafting Delivery: 2012

Solution Details:

The RTOSDT feels that the TOP-001 standard should be restricted to Transmission System operations and that definition of operating states more correctly belong in EOP-001 as pointed out in Order 693, paragraph 560. To make certain that the issue is handled there; the RTOSDT has entered an official item in the NERC database of project issues in this regard. This will require the SDT working on revisions to EOP-001 to formally address this concern. EOP-001 is listed in the Reliability Standards Development Plan under Project 2009-03 which has not yet started.

The TOP standards have been re-written to specifically address what a Transmission Operator is responsible for. The proposed TOP requirements are no longer restricted to the undefined term operating emergency and are now more inclusive and stringent than the previous requirement. Indeed, the undefined term operating emergency is no longer utilized in the proposed revisions. Therefore, any delay in defining operating states in the EOP Project has no effect on the TOP standards.

DIRECTIVE: S- Ref 10366 - Consider Santa Claras comments on requirements R7.2 and R7.3 on transmission operator notification requirements as part of the standards development process.

Para 1588

"Consider Santa Claras comments on requirements R7.2 and R7.3 on transmission operator notification requirements as part of the standards development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

This is covered in proposed TOP-001-2, Requirement R5.

Status: In Drafting Delivery: 2012

Solution Details:

This is covered in proposed TOP-001-2, Requirement R5.

DIRECTIVE: S- Ref 10373 - Address critical energy infrastructure confidentiality as part of the routine standard development process.

Para 1600

"Address critical energy infrastructure confidentiality as part of the routine standard development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Restrictions due to confidentiality have been eliminated by re-writing the data specification requirements in proposed TOP-003-2.

Status: In Drafting Delivery: 2012

Solution Details:

Restrictions due to confidentiality have been eliminated by re-writing the data specification requirements in proposed TOP-003-2.

DIRECTIVE: S- Ref 10369 - Para 1608 - Next-day analysis for all IROLs must identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency.

Para 1601 Sen 8

"Par 1608

As we explained in the NOPR, TOP-002-2 serves an important purpose in ensuring that resources and operational plans are in place to enable system operators to maintain the Bulk-Power System in a reliable state. Further, the requirements set forth in the Reliability Standard are sufficiently clear and objective to provide guidance for compliance. Accordingly, the Commission

approves Reliability Standard TOP-002-2. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to TOP-002-2 through the Reliability Standards development process that: (1) deletes references to confidentiality agreements in Requirements R3 and R4, but addresses the issue separately to ensure that necessary protections are in place related to confidential information; (2) requires the next-day analysis for all IROLs to identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency to return the system to a reliable operating state and prevent cascading outages; (3) requires next-day analysis of minimum voltages at nuclear power plants auxiliary power busses and (4) requires simulation contingencies to match what will actually happen in the field.

Para 1601

As noted above, a number of commenters express concerns with the Commission's proposal to require a next-day analysis for all IROLs to identify and communicate control actions to system operators. Identification and communication of control actions that can be implemented within 30 minutes are required to ensure that system operators are aware of and have options available to respond to system conditions following the first contingency to restore the system to a secure state so that it can withstand the next contingency. In addition, the control actions identified in the next-day analysis may quite often be relevant, and informing the system operators of the control options earlier on would be helpful. While the operators may take other actions to preserve the system, they need to have at least one plan (control actions) that will preserve the system from cascading. We believe this addresses FirstEnergy's concern regarding whether compliance requires the use of only the control actions identified in the day-ahead analysis. In response to APPA's comment on the use of state estimators and other tools to identify effective control actions, we note that this capability will help operators in assessing system responses, but they will not identify the control actions system operators will need to take in real-time. Further, operators may not be aware of available control actions, or worse they may not have any control actions, other than firm load-shedding, available to adjust the system after a first contingency occurs. Therefore, we direct the ERO to modify Reliability Standard TOP-002-2 to require the next-day analysis for all IROLs to identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency to return the system to a reliable operating state and prevent cascading outages.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

See proposed TOP-002-3.

Status: In Drafting Delivery: 2012

Solution Details:

See proposed TOP-002-3.

DIRECTIVE: S- Ref 10374 - Inform the nuclear plant operator in real-time if the auxiliary power bus voltages cannot be maintained.

Para 1603

"Inform the nuclear plant operator in real-time if the auxiliary power bus voltages cannot be maintained."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Next day analysis is required in proposed TOP-002-3, R1...

Status: In Drafting Delivery: 2012

Solution Details:

Next day analysis is required in proposed TOP-002-3, R1. A specified minimum voltage limit is by definition an SOL which must be studied in proposed TOP-002-3, Requirement R1. Additionally, approved NUC-001-2, Requirements R3 & R4.1 require the transmission entity to incorporate NPIRs in their planning and operating analyses. Approved FAC-011-2 and approved FAC-014-2, Requirement R2 require the Transmission Operator to incorporate SOLs into their analyses. All data required for Operational Planning Analyses is stipulated in proposed TOP-003-2.

Approved NUC-001-2, Requirements R3 & R8 covers the information flowing back to the nuclear plant operator.

DIRECTIVE: S- Ref 10370 - Para 1608 - Requires next-day analysis of minimum voltages at nuclear power plants auxiliary power buses.

Para 1603

"1608 - Requires next-day analysis of minimum voltages at nuclear power plants auxiliary power buses."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Next day analysis is required in proposed TOP-002-3, R1.

Status: In Drafting Delivery: 2012

Solution Details:

Next day analysis is required in proposed TOP-002-3, R1.

A specified minimum voltage limit is by definition an SOL which must be studied in proposed TOP-002-3, Requirement R1. Additionally, approved NUC-001-2, Requirement R3 & R4.1 require the transmission entity to incorporate NPIRs in their planning and operating analyses. All data required for Operational Planning Analyses is stipulated in proposed TOP-003-2.

Approved NUC-001-2, Requirements R3 & R8 covers the information flowing back to the nuclear plant operator.

DIRECTIVE: S- Ref 10375 - Commenters did not take issue with the proposed interpretation of the term deliverability as the ability to deliver the output from generation resources to firm load without any reliability criteria violations for plausible generation dispa

Para 1606

"Commenters did not take issue with the proposed interpretation of the term deliverability as the ability to deliver the output from generation resources to firm load without any reliability criteria violations for plausible generation dispatches. The Commission adopts this proposed interpretation. In order to ensure the necessary clarity, the term as used in Requirement R7 of TOP-002-2 should be understood in this manner."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Deliverability and limits are included in Operational Planning Analysis in TOP-002-3, Requirement R1.

Status: In Drafting Delivery: 2012

Solution Details:

Deliverability and limits are included in Operational Planning Analysis in TOP-002-3, Requirement R1.

Operational Planning Analysis contains deliverability and much more and is thus more stringent than the Order. Limit violations in the Operational Planning Analysis will show any deliverability problems regardless of type and proposed requirements mandate that these issues be resolved. In addition, the proposed requirements clearly state that an individual entity, the Transmission Operator, is wholly responsible for these concerns which is an improvement over the previous vaguely worded requirement that placed this responsibility with the Balancing Authority which has no control over the issues involved.

DIRECTIVE: S- Ref 10372 - Consider the comments of ISO-NE and the NRC with respect to requirement R12 and measure M7 as part of the standard development process.

Para 1607

"Consider the comments of ISO-NE and the NRC with respect to requirement R12 and measure M7 as part of the standard development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Replaced by approved MOD-028-1, Requirement R6.1, MOD-029-1a, Requirement R3, and MOD-030-2, Requirement R2.4.

Status: In Drafting Delivery: 2012

Solution Details:

Replaced by approved MOD-028-1, Requirement R6.1, MOD-029-1a, Requirement R3, and MOD-030-2, Requirement R2.4.

Because IROLs by definition are a subset of SOLs, IROLs are included.

MOD-028-1, R6.1, Determine the incremental Transfer Capacity for each ATC Path by increasing generation and/or decreasing load within the source Balancing Authority area and decreasing generation and/or increasing load within the sink Balancing Authority area until either:

-A System Operating Limit is reached on the Transmission Service Provider's system, or
-A SOL is reached on any other adjacent system in the Transmission model that is not on the study path and the distribution factor is 5% or greater.

MOD-029-1a, R3, Each Transmission Operator shall establish the TTC at the lesser of the value calculated in R2 or any System Operating Limit (SOL) for that ATC Path.

MOD-030-2, R2.4, Establish the TFC of each of the defined Flowgates as equal to:

-For thermal limits, the System Operating Limit (SOL) of the Flowgate.
-For voltage or stability limits, the flow that will respect the SOL of the Flowgate.

DIRECTIVE: S- Ref 10371 - Par 1608 - Requires simulation contingencies to match what will actually happen in the field.

Para 1608 Sen 4 Item 4

"Par 1608

As we explained in the NOPR, TOP-002-2 serves an important purpose in ensuring that resources and operational plans are in place to enable system operators to maintain the Bulk-Power System in a reliable state. Further, the requirements set forth in the Reliability Standard are sufficiently clear and objective to provide guidance for compliance. Accordingly, the Commission approves Reliability Standard TOP-002-2. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to TOP-002-2 through the Reliability Standards development process that: (1) deletes references to confidentiality agreements in Requirements R3 and R4, but addresses the issue separately to ensure that necessary protections are in place related to confidential information; (2) requires the next-day analysis for all IROLs to identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency to return the system to a reliable operating state and prevent cascading outages; (3) requires next-day analysis of minimum voltages at nuclear power plants auxiliary power busses and (4) requires simulation contingencies to match what will actually happen in the field.

Para 1604

The Commission proposed in the NOPR that simulations must be consistent with the number of elements that will be removed from service as a result of the failure of a single element. MidAmerican states that it operates consistent with this proposal, in that it respects a single contingency as one that includes all multiple pieces of the elements that go out of service together in response to a single event. Even though MidAmerican states that the Commission's proposal is too restrictive on system operation, it supports the proposal in the interest of reliability. To do otherwise would not represent what actually happens in real-time operations to the detriment of Bulk-Power System reliability, which demonstrates the need to approach the issue as we propose. We discuss this issue further in connection with a the TPL group of Reliability Standards, where we direct the ERO to modify the TPL Reliability Standards to simulate what actually happens in the physical system, including multiple element failures.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

This is covered in proposed TOP-002-3, Requirement R1 by the phrase "...that represents projected System conditions..."

Status: In Drafting Delivery: 2012

Solution Details:

This is covered in proposed TOP-002-3, Requirement R1 by the phrase "...that represents projected System conditions..."

DIRECTIVE: S- Ref 10376 - Para 1626 - Communicate scheduled outages to all affected entities well in advance to ensure reliability and accuracy of ATC calculations.

Para 1620

"1626 - Communicate scheduled outages to all affected entities well in advance to ensure reliability and accuracy of ATC calculations."

Assigned: Project 2007-03 - Real-Time Transmission Operations

New data specifications in TOP-003-2 handle this concern.

Status: In Drafting Delivery: 2012

Solution Details:

New data specifications in TOP-003-2 handle this concern.

DIRECTIVE: S- Ref 10377 - Para 1626 - Incorporate an appropriate lead time for planned outages using suggestions from the various commenters.

Para 1621

"1626 - Incorporate an appropriate lead time for planned outages using suggestions from the various commenters."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The SDT posed a question on this issue as a fact finding exercise in the second posting of this project...

Status: In Drafting Delivery: 2012

Solution Details:

The SDT posed a question on this issue as a fact finding exercise in the second posting of this project in order to assist them in making a decision on how to respond to the FERC directive as requested in order 693 - "The ERO should utilize the information filed by commenters in the Reliability Standards development process". The majority of respondents indicated that they do not feel that there is a reliability based need for such a North American requirement. Several respondents pointed out that such a requirement (if needed at all for reliability) would be better suited to a regional standard and several others stated that such requirements already exist in their particular regions.

There are several regions that have existing rules for lead times, but they are all different and are based on the requirements of their regional markets. Any attempt to impose a North American standard runs the risk of interfering with those FERC approved markets. While NERC Reliability Standards are intended to promote reliability, they must at the same time accommodate competitive electricity markets.

After reviewing the industry comments, the SDT concluded that proposed TOP-001-2, Requirements R5 & R6 adequately cover this issue. The SDT bases this position on the requirement which includes the Operations Planning Time Horizon that covers the period from one day to one year. The requirement mandates that actions are coordinated. The SDT interprets this to include planned outages when they are known.

Therefore, the SDT has not included a standard lead time in the revised requirements.

DIRECTIVE: S- Ref 10378 - Consider TVAs suggestion for including breaker outages within the meaning of facilities that are subject to advance notice for planned outages.

Para 1622

"Consider TVAs suggestion for including breaker outages within the meaning of facilities that are subject to advance notice for planned outages."

Assigned: Project 2007-03 - Real-Time Transmission Operations

New data specifications in proposed TOP-003-2 handle this concern.

Status: In Drafting Delivery: 2012

Solution Details:

New data specifications in proposed TOP-003-2 handle this concern.

DIRECTIVE: S- Ref 10379 - Require any facility, that in the opinion of the reliability coordinator, balancing authority, or transmission operator, will have a direct impact on the reliability of the bulk power system be subject to the requirement R1 for planned outa

Para 1624

"Require any facility, that in the opinion of the reliability coordinator, balancing authority, or transmission operator, will have a direct impact on the reliability of the bulk power system be subject to the requirement R1 for planned outage coordination"

Assigned: Project 2007-03 - Real-Time Transmission Operations

New data specifications in proposed TOP-003-2, Requirement R1 (and bullets) handle this concern.

Status: In Drafting Delivery: 2012

Solution Details:

New data specifications in proposed TOP-003-2, Requirement R1 (and bullets) handle this concern.

DIRECTIVE: S- Ref 10380 - Para 1630 - Modify requirement R4 to state that the system should be restored to respect proven limits as soon as possible taking no more than 30 minutes.

Para 1636

"1630 - Modify requirement R4 to state that the system should be restored to respect proven limits as soon as possible taking no more than 30 minutes."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Replaced by proposed TOP-001-2, R7 through R11. Tv is more stringent than the existing 30 minute requirement for IROLs and the selected SOLs are now tied to the specific ratings from which the SOLs were derived.

Status: In Drafting Delivery: 2012

Solution Details:

Replaced by proposed TOP-001-2, R7 through R11. Tv is more stringent than the existing 30 minute requirement for IROLs and the selected SOLs are now tied to the specific ratings from which the SOLs were derived.

Unknown states, in this context, cannot exist because valid operating limits have been determined for all Facilities in a TOPs footprint. The SDT feels that proposed EOP-001-2 dealing with emergency operations planning covers the general intent of being prepared to react to Emergencies.

DIRECTIVE: S- Ref 10383 - Para 1628 - Perform a survey of the prevailing operating practices and actual operating experiences surrounding IROL limits.

Para 1637

"1628 - Perform a survey of the prevailing operating practices and actual operating experiences surrounding IROL limits."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Not within the scope of the SDT.

Status: In Drafting Delivery: 2012

Solution Details:

Not within the scope of the SDT.

DIRECTIVE: S- Ref 10381 - Para 1640 - Defines high risk conditions under which the system must be operated to respect multiple outages in requirement R3.

Para 1638

"1640 - Defines high risk conditions under which the system must be operated to respect multiple outages in requirement R3."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The SDT feels that proposed EOP-001-2 dealing with emergency operations planning covers the general intent of being prepared to react to the cited situations.

Status: In Drafting Delivery: 2012

Solution Details:

The SDT feels that proposed EOP-001-2 dealing with emergency operations planning covers the general intent of being prepared to react to the cited situations.

The method chosen to respond to a given catastrophic challenge to a localized portion of the bulk power system cannot be predetermined by science; rather, it is an art. Reliability entities develop their response mechanisms based on experience in their local areas to achieve the maximum societal benefit during these periods.

In addition, FAC-011-2 and FAC-014-2 deal with specific requirements for dealing with multiple contingencies.

DIRECTIVE: S- Ref 10382 - Consider Santa Claras comments regarding changes to requirement R2 in the standards development process. (Santa Clara states that Requirement R2 of the Reliability Standard should be revised to include frequency monitoring in addition to th

Para 1639

"Consider Santa Claras comments regarding changes to requirement R2 in the standards development process. (Santa Clara states that Requirement R2 of the Reliability Standard should be revised to include frequency monitoring in addition to the monitoring of voltage, real and reactive power flows.)"

Assigned: Project 2007-03 - Real-Time Transmission Operations

This is covered as part of the new data specification requirements in proposed TOP-003-2 for the Transmission Operator & Balancing Authority. The Reliability Coordinator is covered by approved IRO-010-1, Requirement R3.

Status: In Drafting Delivery: 2012

Solution Details:

This is covered as part of the new data specification requirements in proposed TOP-003-2 for the Transmission Operator & Balancing Authority. The Reliability Coordinator is covered by approved IRO-010-1, Requirement R3.

DIRECTIVE: S- Ref 10384 - Para 1651 - Include information about the operational status of special protection systems and power system stabilizers in Attachment 1.

Para 1648

"1651 - Include information about the operational status of special protection systems and power system stabilizers in Attachment 1."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2.

Status: In Drafting Delivery: 2012

Solution Details:

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2. R1. Each Transmission Operator and Balancing Authority shall have a documented specification for the data necessary for it to perform its required Operational Planning Analyses and Real-time Monitoring.

DIRECTIVE: S- Ref 10386 - Consider FirstEnergys modifications to Attachment 1 and ISO-NEs recommended revision to requirement R4 in the standards development process. ISO-NE recommends that the reference to purchasing-selling entity in Requirement R4 should be repl

Para 1650

"Consider FirstEnergys modifications to Attachment 1 and ISO-NEs recommended revision to requirement R4 in the standards development process.

ISO-NE recommends that the reference to purchasing-selling entity in Requirement R4 should be replaced with generator owner, transmission owner, and LSE."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2.

Requirement R4 has been superseded by proposed TOP-003-2 which does include the indicated entities and has deleted PSE

Status: In Drafting Delivery: 2012

Solution Details:

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2.

Requirement R4 has been superseded by proposed TOP-003-2 which does include the indicated entities and has deleted PSE

DIRECTIVE: S- Ref 10387 - 1653 - Add requirement related to the provision of minimum capabilities that are necessary to enable operators to deal with real-time situations and to ensure reliable operation of the bulk power system.

Para 1660

"1653 - Add requirement related to the provision of minimum capabilities that are necessary to enable operators to deal with real-time situations and to ensure reliable operation of the bulk power system."

Assigned: Project 2009-02 - Real Time Reliability Monitoring and Analysis Capabilities

DIRECTIVE: S- Ref 10388 - Para 1653 - Clarify the meaning of appropriate technical information concerning protective relays.

Para 1663

"1653 - Clarify the meaning of appropriate technical information concerning protective relays."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The term is no longer used.

Status: In Drafting Delivery: 2012

Solution Details:

The term is no longer used.

DIRECTIVE: S- Ref 10389 - Para 1658 - Consider APPAs comments regarding missing measures in the standards development process.

Para 1664

"Para 1664

The ERO should consider APPAs comment regarding the missing Measures in the EROs Reliability Standards development process.

Para 1658

APPAs states that the EROs filing on November 15, 2006 includes new Measures M1 through M6, which only measure Requirements R1, R2, R4, R5 and R7.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

Measures have been assigned to all requirements.

Status: In Drafting Delivery: 2012

Solution Details:

Measures have been assigned to all requirements.

DIRECTIVE: S- Ref 10391 - Para 1671 - Consider the NRCs comments on voltage requirements as part of the standards development process.

Para 1673

"Para 1673

NRC has raised some significant issues regarding the consideration of nuclear power plants voltage requirements. Consistent with our general approach in this Final Rule, we direct the ERO to consider NRCs comments in the Reliability Standards development process when addressing TOP-007-0 as part of its Work Plan.

Para 1671

NRC states that some nuclear power plant voltage requirements would result in SOL, i.e., the nuclear power plant voltage limits would be an SOL as a result of the minimum and maximum voltages required at the nuclear power plant switchyard, which typically has a tighter operating band (a higher minimum and a lower maximum) than other nodes in the system. It therefore recommends adding a new requirement that states as follows: Following discovery of a potential contingency that could result in an SOL being exceeded at a nuclear power plant (e.g., at post-trip voltage), the transmission owner shall notify the nuclear power plant operator as soon as possible but not longer than 30 minutes if the contingency has not been corrected. NRC also suggests modifying the Measures and Compliance sections and Table 1 to account for the new requirement, and provides specific language to be included in those places.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

Next day analysis is required in proposed TOP-002-3, R1...

Status: In Drafting Delivery: 2012

Solution Details:

Next day analysis is required in proposed TOP-002-3, R1. A specified minimum voltage limit is by definition an SOL which must be studied in proposed TOP-002-3, Requirement R1. Additionally, approved NUC-001-2, Requirements R3 & R4.1 require the transmission entity to incorporate NPIRs in their planning and operating analyses. Approved FAC-011-2 and approved FAC-014-2, Requirement R2 require the Transmission Operator to incorporate SOLs into their analyses. All data required for Operational Planning Analyses is stipulated in proposed TOP-003-2.

Approved NUC-001-2, Requirements R3 & R8 covers the information flowing back to the nuclear plant operator.

DIRECTIVE: S- Ref 10392 - Para 1678 - Consider APPAs comments regarding missing measures in the standards development process.

Para 1681

"1678 - Consider APPAs comments regarding missing measures in the standards development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Measures have been assigned to all requirements.

Status: *In Drafting* Delivery: 2012

Solution Details:

Measures have been assigned to all requirements.

DIRECTIVE: S- Ref 10393 - Consider integrating TPL-001 through TPL-004 into one standard.

Para 1692

"Consider integrating TPL-001 through TPL-004 into one standard."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2 incorporates TPL-001-0 through TPL-004-0

Status: *Filed* Delivery: 2011

Solution Details:

TPL-001-2 incorporates TPL-001-0 through TPL-004-0

DIRECTIVE: S- Ref 10400 - Submit an informational filing, in addition to regional criteria, all utility and RTO/ISO differences in transmission planning criteria that are more stringent than those specified by the TPL standards.

Para 1693

"Submit an informational filing, in addition to regional criteria, all utility and RTO/ISO differences in transmission planning criteria that are more stringent than those specified by the TPL standards."

Assigned: Project 2006-02 - Assess Transmission Future Needs

The data has been collected and distributed to the SDT and reviewed for consideration.

Status: *Filed* Delivery: 2011

Solution Details:

The data has been collected and distributed to the SDT and reviewed for consideration. Detailed discussions are contained in the SDT meeting minutes. None Not a drafting team issue

DIRECTIVE: S- Ref 10394 - 1694, 1704, & 1706 - Consider the full range of variables when determining critical system conditions but only those deemed to be significant need to be assessed and documentation provided that explain the rational for selection. Determine critical syst

Para 1706

"1694, 1704, & 1706 - Consider the full range of variables when determining critical system conditions but only those deemed to be significant need to be assessed and documentation provided that explain the rational for selection. Determine critical system conditions and study years by conducting sensitivity analysis with due consideration of the factors outlined by the Commission."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R3, part 3.4 & Requirement R4, part 4.4

Status: *Filed* Delivery: 2011

Solution Details:

TPL-001-2, Requirement R3, part 3.4 & Requirement R4, part 4.4

DIRECTIVE: S- Ref 10395 - System performance should be assessed based on contingencies that mimic what happens in real-time.

Para 1716

"System performance should be assessed based on contingencies that mimic what happens in real-time."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R1

Status: *Filed* Delivery: 2011

Solution Details:

TPL-001-2, Requirement R1

DIRECTIVE: S- Ref 10396 - Consider appropriate revisions to the reliability standards to deal with cyber security events.

Para 1719

"Consider appropriate revisions to the reliability standards to deal with cyber security events."

Assigned: Project 2006-02 - Assess Transmission Future Needs

Cyber security events have been added to the list of Extreme Events

Status: Filed Delivery: 2011

Solution Details:

Cyber security events have been added to the list of Extreme Events

DIRECTIVE: S- Ref 10399 - The Commission directs the ERO to modify the planning Reliability Standards to require the assessment of planned outages consistent with the entity's spare equipment strategy.

Para 1725

"The Commission directs the ERO to modify the planning Reliability Standards to require the assessment of planned outages consistent with the entity's spare equipment strategy."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.1.5

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.1.5

DIRECTIVE: S- Ref 10397 - With regard to SDG&Es suggestion to clarify specific elements of this Reliability Standard, we direct the ERO to consider such suggestions in its Reliability Standards development process

Para 1727

"With regard to SDG&Es suggestion to clarify specific elements of this Reliability Standard, we direct the ERO to consider such suggestions in its Reliability Standards development process"

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2 is a complete re-write of the existing standards with one of the design goals to provide clarification of existing language

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2 is a complete re-write of the existing standards with one of the design goals to provide clarification of existing language

DIRECTIVE: S- Ref 10398 - Accordingly, to ensure that neighboring systems are not adversely affected and to provide an early opportunity for input and coordination of plans, the Commission directs the ERO to include these modifications to the Reliability Standard through its Rel

Para 1755

"Accordingly, to ensure that neighboring systems are not adversely affected and to provide an early opportunity for input and coordination of plans, the Commission directs the ERO to include these modifications to the Reliability Standard through its Reliability Standards development process to provide for the appropriate sharing of information with neighboring systems"

Assigned: Project 2006-02 - Assess Transmission Future Needs

The SDT has added language to specifically address this concern.

Status: Filed Delivery: 2011

Solution Details:

The SDT has added language to specifically address this concern. R8.

DIRECTIVE: S- Ref 10404 - Para's 1694, 1704, & 1706 - Consider the full range of variables when determining critical system conditions but only those deemed to be significant need to be assessed and documentation provided that explain the rationale for selection.

Para 1765

"1694, 1704, & 1706 - Consider the full range of variables when determining critical system conditions but only those deemed to be significant need to be assessed and documentation provided that explain the rationale for selection."

Determine critical system conditions and study years by conducting sensitivity analysis with due consideration of the factors outlined by the Commission."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.1.4

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.1.4

DIRECTIVE: S- Ref 10405 - Para 1751 - Require a peer review of planning assessments with neighboring entities

Para 1766

"1751 - Require a peer review of planning assessments with neighboring entities"

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R3, part 3.4.1, Requirement R4, part 4.4.1 and Requirement R8

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R3, part 3.4.1, Requirement R4, part 4.4.1 and Requirement R8

DIRECTIVE: S- Ref 10406 - Para 1759 - Modify requirement R1.3 to substitute the reference to regional reliability organization with regional entity.

Para 1767

"1759 - Modify requirement R1.3 to substitute the reference to regional reliability organization with regional entity."

Assigned: Project 2006-02 - Assess Transmission Future Needs

References to RRO have been removed

Status: Filed Delivery: 2011

Solution Details:

References to RRO have been removed

DIRECTIVE: S- Ref 10407 - Para 1786 - Require assessments of outages of critical long lead time equipment, consistent with an entity's spare equipment strategy

Para 1768

"1786 - Require assessments of outages of critical long lead time equipment, consistent with an entity's spare equipment strategy"

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.1.5

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.1.5

DIRECTIVE: S- Ref 10408 - Para 1797 - Address concerns with footnote (a) of Table 1 with regard to applicability of emergency ratings and consistency of normal ratings and voltages with values obtained from other reliability standards and concerns raised by Internat

Para 1769

"1797 - Address concerns with footnote (a) of Table 1 with regard to applicability of emergency ratings and consistency of normal ratings and voltages with values obtained from other reliability standards and concerns raised by International Transmission with regard to the footnotes in Table 1"

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Table 1, header note 'e'

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Table 1, header note 'e'

DIRECTIVE: S- Ref 10409 - Para's 1694, 1704, & 1706 - Determine critical system conditions in the same manner as proposed in TPL-001.

Para 1785

"1694, 1704, & 1706 - Determine critical system conditions in the same manner as proposed in TPL-001."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.1.4

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.1.4

DIRECTIVE: S- Ref 10410 - Requires assessment of planned outages of long lead time critical equipment consistent with the entity's spare equipment strategy.

Para 1786

"Requires assessment of planned outages of long lead time critical equipment consistent with the entity's spare equipment strategy."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.1.5

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.1.5

DIRECTIVE: S- Ref 10365 - Requires all generators to ride through the same set of category B and C contingencies as required by wind generators in Order No. 661, or to simulate without this capability as tripping.

Para 1787

"1787. In the NOPR, the Commission identified an implicit assumption in the TPL Reliability Standards that all generators are required to ride through the same types of voltage disturbances and remain in service after the fault is cleared. This implicit assumption should be made explicit. Commenters agree with the proposed requirement for all generators to ride through the same set of Category B and C events as required for wind generators. The Commission understands that NRC has both degraded voltage and loss of voltage requirements. The degraded voltage requirement allows the voltage at the auxiliary power system buses to go below the minimum value for a time frame that is usually much longer than normal fault clearing time. If a specific nuclear power plant has an NRC requirement that would force it to trip off-line if its auxiliary power system voltage was depressed below some minimum voltage, the simulation should include the tripping of the plant in addition to the faulted facilities. In this regard, the Commission agrees that NRC requirements should be used when implementing the Reliability Standards. Using NRC requirements as input will assure that there is consistency between the Reliability Standards and the NRC requirement that the system is accurately modeled. Accordingly, the Commission directs the ERO to modify the Reliability Standard to explicitly require either that all generators are capable of riding through the same set of Category B and C contingencies, as required by wind generators in Order No. 661, or that those generators that cannot ride through be simulated as tripping. If a generator trips due to low voltage from a single contingency, the initial trip of the faulted element and the resulting trip of the generator would be governed by Category B contingencies and performance criteria."

Assigned: Project 2007-09 - Generator Verification

The GVSDT believes that Requirement R2 and the voltage ride through curves in PRC-024 Attachment 2 accomplish this.

Status: In Drafting Delivery: 2013

Solution Details:

The GVSDT believes that Requirement R2 and the voltage ride through curves in PRC-024 Attachment 2 accomplish this. While the curves were developed based on three phase normally cleared faults located at a generating plant substation (the most severe condition for generating equipment), the curves cover voltages depressed as low as 0.65 per unit for two seconds, which the GVSDT feels will cover the Category B and C events of concern to the Commission. Requirement R5 directs all new generating facilities following approval of this standard to be designed, built and maintained so that they are able to ride through the excursions defined in the standard. For existing units, Requirement R3 allows an exemption from portions of the ride through curves in PRC-024 Attachments 1 and 2 for documented technical reasons, but directs those generators to communicate that limitation to the RC, PC, TOP and TP so its performance can be modeled correctly. In addition, Requirement R4 allows the RC, PC, TOP, or TP to request an estimate of performance (ride through duration) from the GO for a defined excursion. The estimate would cover process upsets to the generating equipment that might result in a delayed trip, even if the generator protection itself did not cause a trip. The GVSDT believes that Requirement R3 allows NRC requirements to supersede portions of the voltage and frequency ride through criteria in PRC-024-1. This Requirement allows generators an exemption from portions of the ride through curves for documented technical limitations. The GVSDT believes that NRC requirements qualify as technical limitations for the purposes of this standard.

DIRECTIVE: S- Ref 10411 - Requires all generators to ride through the same set of category B and C contingencies as required by wind generators in Order No. 661, or to simulate without this capability as tripping.

Para 1787

"Requires all generators to ride through the same set of category B and C contingencies as required by wind generators in Order No. 661, or to simulate without this capability as tripping."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R3, part 3.3.2 & Requirement R4, part 4.3.2

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R3, part 3.3.2 & Requirement R4, part 4.3.2

DIRECTIVE: S- Ref 10414 - Consider NRCs comments regarding clarifying the N-1 state as being always applicable to the current conditions as part of the standards development process.

Para 1788

"Consider NRCs comments regarding clarifying the N-1 state as being always applicable to the current conditions as part of the standards development process."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Table 1 & Requirement R1

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Table 1 & Requirement R1

DIRECTIVE: S- Ref 10412 - Document the load models used in system studies and the rationale for their use.

Para 1789

"Document the load models used in system studies and the rationale for their use."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.4.1

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.4.1

DIRECTIVE: S- Ref 10413 - Para 1773 - Clarify the phrase permit operating steps necessary to maintain system control in the footnote (a) and the use of emergency ratings.

Para 1790

"1773 - Clarify the phrase permit operating steps necessary to maintain system control in the footnote (a) and the use of emergency ratings."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Table 1, header note 'e'

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Table 1, header note 'e'

DIRECTIVE: S- Ref 10415 - Standard should be clarified to not allow an entity to plan for the loss of non-consequential load in the event of a single contingency.

Para 1794 Sen 1 and 2

"Para 1794 Sen 1 and 2

Based on the record before us, we believe that the transmission planning Reliability Standard should not allow an entity to plan for the loss of non-consequential load in the event of a single contingency. (Footnote 461: Consequential load is the load that is directly served by the elements that are removed from service as a result of the contingency.) The Commission directs the ERO to clarify the Reliability Standard. Regarding the comments of Entergy and Northern Indiana that the Reliability Standard should allow entities to plan for the loss of firm service for a single contingency, the Commission finds that their comments may be considered through the Reliability Standards development process. However, we strongly discourage an approach that reflects the lowest common denominator. The Commission also clarifies that an entity may seek a regional difference to the Reliability Standard from the ERO for case-specific circumstances.

Para 1773 Item 6

The Commission proposed in the NOPR to approve Reliability Standard TPL-002-0 as mandatory and enforceable. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, we proposed to direct NERC to submit a modification to TPL-002-0 that: (1) requires that critical system conditions be determined in the same manner as proposed for TPL-001-0; (2) requires the inclusion of the reliability impact of the entity's existing spare equipment strategy; (3) explicitly requires all generators to ride through the same set of Category B and C contingencies as required for wind generators in Order No. 661; (4) requires documentation of load models used in system studies and supporting rationale for their use; (5) clarifies the phrase permit operating steps necessary to maintain system control and (6) clarifies footnote (b) to Table 1 to allow no firm load or firm transactions to be interrupted except for consequential load loss.

"

Assigned: Project 2010-11 - TPL Table 1 Order

Non-consequential load loss addressed through stakeholder process

Status: Filed Delivery: 2011

Solution Details:

SDT addressed an alternative approach allowing loss of non-consequential load in special circumstances as vetted through a stakeholder process.

DIRECTIVE: S- Ref 10417 - Regarding the comments of Entergy and Northern Indiana that the Reliability Standard should allow entities to plan for the loss of firm service for a single contingency, the Commission finds that their comments may be considered through the

Para 1794 Sen 3

"Para 1794 Sen 3

Based on the record before us, we believe that the transmission planning Reliability Standard should not allow an entity to plan for the loss of non-consequential load in the event of a single contingency. (Footnote 461: Consequential load is the load that is directly served by the elements that are removed from service as a result of the contingency.) The Commission directs the ERO to clarify the Reliability Standard. Regarding the comments of Entergy and Northern Indiana that the Reliability Standard should allow entities to plan for the loss of firm service for a single contingency, the Commission finds that their comments may be considered through the Reliability Standards development process. However, we strongly discourage an approach that reflects the lowest common denominator. The Commission also clarifies that an entity may seek a regional difference to the Reliability Standard from the ERO for case-specific circumstances.

Para 1780 thru 1781

Northern Indiana also takes issue with the NOPR proposal that no load or transactions be interrupted except for consequential load loss. Attempting to reduce the probability of load loss to zero would greatly increase capital spending, and therefore increase rates to customers, and all in the name of achieving an unattainable goal. PG&E disputes that the Reliability Standard should provide limits on the magnitude and duration of consequential load loss. Determining the magnitude and consequences of load loss is a factor in the economic evaluation during the development of transmission expansion plans. This economic evaluation is not an appropriate subject for this Reliability Standard. Northern Indiana urges the Commission to acknowledge that planning studies by nature must balance infrastructure improvement and expansion against site-specific and regional load projections, using available resources. It questions whether the NOPR reflects a proper balance between the many costs involved and the benefits, if any, that would be realized.

Entergy opposes the Commission's proposed guidance concerning footnote (b) to Table 1 for two reasons. First, Entergy believes the Commission should give due weight to the technical expertise of NERC and permit NERC to address these matters through Reliability Standards development process. Second, the Commission's guidance suggests that it views all transmission outages as having the same level of importance to and impact on the interconnected

transmission grid. Entergy states that the Commission should recognize that the effect of transmission outages can be local in nature and have no impact on the reliability of the Bulk Power System. Removing the transmission operators ability to shed load or enact other system adjustments as appropriate for a single contingency would result in significant facility upgrade costs simply to avoid the consequence of a local outage. Entergy requests that the Commission clarify that its guidance does not constrain the transmission operators ability to determine the best course of action to take to address any reliability constraint that may result from these local outages.

"

Assigned: Project 2010-11 - TPL Table 1 Order

Comments considered as part of alternative approach suggested by SDT.

Status: Filed Delivery: 2011

Solution Details:

Comments were considered as part of the proposed solution.

DIRECTIVE: S- Ref 10416 - Commission, therefore, suggests that the ERO consider developing a ceiling on the amount and duration of consequential load loss that will be acceptable. If the ERO determines that such a ceiling is appropriate, it should be developed throu

Para 1795 Sen 5 and 6

"PG&E disputes that the Reliability Standard should provide limits on the magnitude and duration of consequential load loss, as this is an economic evaluation and is not an appropriate goal for this Reliability Standard. The Commission disagrees. Indeed in its comments to the Staff Preliminary Assessment, the ERO raised the issue of what is an acceptable magnitude and duration of consequential load loss. (Footnote 463: NERC Comments to Staff Preliminary Assessment at 56 57) The Commission notes that most utilities have guidelines for the magnitude and duration of load loss that is acceptable on radial facilities before the facilities are looped to provide a second source of supply to accommodate load growth. NERC also stated that it recognizes that looped configurations are key to the reliable operation of the Interconnection and to meet reasonable expectations for reliable service to loads. (Footnote 464: NERC recognizes that looped configurations are key to the reliable operation of the interconnection, and to meet reasonable expectations for reliable service to loads.) The Commission, therefore, suggests that the ERO consider developing a ceiling on the amount and duration of consequential load loss that will be acceptable. If the ERO determines that such a ceiling is appropriate, it should be developed through the EROs Reliability Standards development process. Further, we note that the DOE thresholds for reporting disturbances on Form EIA-417 would be one example of an appropriate starting point for developing such a ceiling. These thresholds for load loss are 300 MW for 15 minutes or 50,000 customers for one hour, whichever is greater."

Assigned: Project 2010-11 - TPL Table 1 Order

SDT considered this and rejected it as not applicable to a reliability standard.

Status: Filed Delivery: 2011

Solution Details:

SDT considered this and rejected it as not applicable to a reliability standard. Multiple attempts were made to come to a compromise position on this item with industry through comments periods but to no avail.

DIRECTIVE: S- Ref 10418 - The Commission, therefore, directs the ERO to modify the second sentence of footnote (b) to clarify that manual system adjustments other than shedding of firm load or curtailment of firm transfers are permitted to return the system to a nor

Para 1796 Sen 9

"The third issue with footnote (b) relates to the Commissions proposal in the NOPR to delete the footnotes second sentence, which states [t]o prepare for the next contingency, system adjustments are permitted, including curtailments of contracted Firm (non-recallable reserved) electric power transfers. PG&E disagrees with the Commissions proposal because it allows re-scheduling power (but not load shedding) as part of manual adjustment after the first Category B

contingency to bring the system back to a safe operating point. The Commission agrees that footnote (b) should permit manual adjustments including generation redispatch and transmission reconfiguration, but not load shedding, to return the system to a normal operating state within the time period permitted by the emergency or short term ratings. The Commission understands that this is the normal practice used by most transmission planners. However, the system adjustments permitted in the statement above includes curtailments of contracted firm, non-recallable reserved and electric power transfers and this is not acceptable for Category B single contingencies. Therefore, the ERO should modify the sentence to indicate that manual system adjustments, except for shedding firm load or curtailment of firm transfers, are permitted after the first contingency to bring the system back to a normal operating state. The Commission disagrees with PG&Es statement that the difference between footnote (b) as part of Category B and Category C.3 is that footnote (b) applies before the second N-1 contingency, whereas Category C.3 applies after the second N-1 contingency. Rather, manual adjustments referred to in both cases apply after the first N-1 contingency. The Commission, therefore, directs the ERO to modify the second sentence of footnote (b) to clarify that manual system adjustments other than shedding of firm load or curtailment of firm transfers are permitted to return the system to a normal operating state after the first contingency, provided these adjustment can be accomplished within the time period allowed by the short term or emergency ratings."

Assigned: Project 2010-11 - TPL Table 1 Order

DIRECTIVE: S- Ref 10419 - The Commission directs the ERO to modify TPL-003-0 to require that critical system conditions and study years be determined in the same manner as we directed with regard to TPL-001-0, for the reasons as set forth in our discussion of TPL-001-0 (see Ref 10409).

Para 1817

"1817.The Commission notes that, like Requirement R1.3.1 of TPL-001-0, Requirement R1.3.2 of TPL-003-0 requires an entity assessing system performance to cover critical system conditions and study years as deemed appropriate by the entity performing the study, but that the Requirement does not specify the rationale for determining critical system conditions and study years. The Commission directs the ERO to modify TPL-003-0 to require that critical system conditions and study years be determined in the same manner as we directed with regard to TPL-001-0, for the reasons as set forth in our discussion of TPL-001-0."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10420 - 1806 - Clarify the term controlled load interruption.

Para 1818

"Para 1818 The intent underlying the statement that to avoid undue negative impact on competition, third party studies should be permitted to implement the same or less controlled load interruption as used by the transmission owner is to ensure that third parties have access to the same options that the transmission owner uses to alleviate reliability constraints including those related to controlled load shedding. For example, if a transmission owner designs its system to result in a controlled load shedding of 300 MW for Category C contingencies, designs proposed for third parties requesting interconnections to that system must also be permitted, but not required, to have 300 MW of controlled load shedding for the same Category C contingencies. The Commission directs the ERO to modify footnote (c) of Table 1 to the Reliability Standard to clarify the term controlled load interruption. In response to LPPCs comments on modification procedures, the Commission agrees that changes to the footnotes of Table 1 should be addressed through the EROs Reliability Standards development process.

Para 1806 EEI requests that the Commission clarify the meaning of the term controlled load interruption and the meaning of its statement that to avoid undue negative impact on competition, third party studies could be permitted to implement the same or less controlled load interruption as used by the transmission owner.

"

Assigned: Project 2006-02 - Assess Transmission Future Needs

The terminology is no longer utilized.

Status: Filed Delivery: 2011

Solution Details:

The terminology is no longer utilized.

DIRECTIVE: S- Ref 10421 - Applicable entities must define and document the proxies necessary to simulate cascading outages.

Para 1820

"Applicable entities must define and document the proxies necessary to simulate cascading outages."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R6

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R6

DIRECTIVE: S- Ref 10422 - Para 1821 - Tailor the purpose statement to reflect the specific goal of the standard.

Para 1821

"1821 - Tailor the purpose statement to reflect the specific goal of the standard."

Assigned: Project 2006-02 - Assess Transmission Future Needs

The purpose statement of TPL-001-2 has been rewritten.

Status: Filed Delivery: 2011

Solution Details:

The purpose statement of TPL-001-2 has been rewritten.

DIRECTIVE: S- Ref 10423 - Para 1788 - Address NRC concerns as described in TPL-002 through the standards development process.

Para 1822

"1788 - Address NRC concerns as described in TPL-002 through the standards development process."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Table 1 re-write

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Table 1 re-write

DIRECTIVE: S- Ref 10424 - Consider the comments on major load pockets as part of the standards development process.

Para 1824 Sen 8

"Para 1824 Sen 8

Many commenters state that, without a consensus on what constitutes a major load pocket, little progress can be made in this regard. LPPC states that the definition of major load pockets has been and is still being debated. National Grid states that N-2 planning is usually relied upon when a particular area does not have the resources and flexibility to adopt the N-1-1 approach. The Commission agrees with National Grid but notes that this is more applicable to the operating domain, something that MISO opposes. PG&E states that this approach is not necessary because Category C5 already addresses more probable simultaneous outages due to common mode failure. The Commission disagrees since Category C5 only deals with a loss of any two circuits on a multi-circuit tower line and not a simultaneous loss of a line and a generator which was

envisaged by the request for comments. Many commenters indicated that this was a very low probability event and the costs for addressing such an event would be significant. As a result, EEI states that a dialogue must first be initiated within the industry and with state public utility commissions to identify such load pockets, to target the required potentially significant transmission investments and to develop plans for allocating the costs of such investments. In light of these comments, the Commission does not intend to recommend action on this issue at this time and, instead, directs the ERO to consider the comments in possible future revisions to the Reliability Standard.

Para 1808 thru 1815

1808.A number of commenters respond to the Commissions request for comments on the value and appropriateness of including the ability of the system to withstand two simultaneous contingencies for major load pockets. NERC states that this issue has been recognized as needing clarification, and it welcomes comments in the development of these revisions in accordance with its Reliability Standards development process. NERC states that it is developing a proposal for a transmission availability data system that will provide a quantitative (probabilistic) basis for judging the likelihood of various multi-element contingencies which will be helpful in determining the value of this proposal.

1809.APPA, LPPC and National Grid state that imposing N-2 planning may be difficult to administer since there is no consensus on what constitutes a major load pocket. LPPC states that the definition of major load pockets has been, and is still being debated. As there is no nationwide consensus on the terms definition, no list of major load pockets exists. Because load pockets and their boundaries change with the dynamically changing system and load patterns, it is difficult to establish or administer a rule that encompasses the particular sub-region to which such an N-2 requirement would apply.

1810.APPA and EEI believe such provisions would significantly expand planning requirements for extremely unlikely events that in most cases are not cost effective to build into system planning decisions. They explain that the Reliability Standard currently includes the more likely situation, i.e., where two events occur in a time frame that allows some time to adjust in response to the first event. APPA and EEI state that various planning entities may, of course, study much more extreme events, including the hypothetical the Commission poses, especially if formal state or regional planning requires such studies, and actual preparation for extreme events is viewed as cost-effective in a particular area. However, this level of planning sensitivity is simply unnecessary for many regions of the country. They ask that if the Commission envisions changes to provide for N-2 service to load pockets, a dialogue must first be initiated within the industry and with state public utility commissions to identify such load pockets, target the required transmission investments (which could be very substantial) and develop plans for allocating the costs of such investments.

1811.FirstEnergy comments that, although simultaneous C.3 independent contingencies may pose potentially high risk, they are most likely extremely low in probability. FirstEnergy states that it nevertheless routinely evaluates these contingencies across its system for facilities 200 kV and higher and suggests that if this analysis is made a requirement, it should be limited to an extra high voltage subset of the Bulk-Power System.

1812.MISO believes that evaluation of multiple contingency events should only reside in the planning arena and not in the operations environment. It states that the current Reliability Standard provides a reasonable and time tested methodology.

1813.National Grid opposes applying this N-2 criterion across the board. It states that N-2 planning is usually relied upon when a particular area does not have the resources or flexibility to adopt the N-1-1 approach. The Bulk-Power System is designed differently in every region, and

there is no need to impose N-2 planning where regions are satisfactorily implementing the N-1-1 methodology.

1814.SDG&E states that the N-2 consideration for major load pockets is neither of value nor appropriate for transmission planning entities at large. The probability of such a contingency for a major load pocket is very low, and the costs for addressing such a remote contingency would be significant. SoCal Edison states the potential number of multi-contingency events that could be studied under TPL-003-0 is staggering. Planners should be given flexibility to select generation and transmission elements that reflect a broad range of potential combinations without having to commit resources to conduct potentially hundreds or thousands of contingency studies. Northern Indiana contends that this requirement is in effect a third back-up capability, that it would be prohibitive in terms of time and cost, and that it would take many years to put the infrastructure it would require into place.

1815. PG&E believes there is no need for a general requirement to withstand the simultaneous occurrence of any two contingencies for major load pockets. It states that IRO-005 provides for contingencies that are credible when operating below IROL in current day operations. The TPL group of Reliability Standards already require provisions for specific circumstances based on evaluations that take into account the probability of an outage occurring and the associated consequences when transmission plans are developed. PG&E states that TPL-003-0, Category C.5 contingency already addresses the more probable simultaneous outages (due to common-mode failure) that could occur. PG&E maintains that simultaneous occurrence of other contingencies is not credible. The principles incorporated in the Reliability Standards require that evaluations of credibility be balanced against potential impact, and investing resources to prevent improbable events diverts attention and focus from more critical Reliability Standards and more probable conditions.

"

Assigned: Project 2006-02 - Assess Transmission Future Needs

In light of these comments, the Commission does not intend to recommend action on this issue at this time.

Status: Filed Delivery: 2011

Solution Details:

In light of these comments, the Commission does not intend to recommend action on this issue at this time. - No action taken for this revision.

DIRECTIVE: S- Ref 10425 - Para 1765 - Determine critical system conditions in the same manner as proposed in TPL-001.

Para 1832

"1765 - Determine critical system conditions in the same manner as proposed in TPL-001."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R2, part 2.1.4

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R2, part 2.1.4

DIRECTIVE: S- Ref 10426 - Para 1836 - Identify options for reducing the probability or impacts of extreme events that cause cascading.

Para 1833

"1836 - Identify options for reducing the probability or impacts of extreme events that cause cascading."

Assigned: Project 2006-02 - Assess Transmission Future Needs

TPL-001-2, Requirement R3, part 3.5 & Requirement R4, part 4.5

Status: Filed Delivery: 2011

Solution Details:

TPL-001-2, Requirement R3, part 3.5 & Requirement R4, part 4.5

DIRECTIVE: S- Ref 10427 - Para 1836 - Expand the list of category D events to include recent actual events.

Para 1834

"1836 - Expand the list of category D events to include recent actual events."

Assigned: Project 2006-02 - Assess Transmission Future Needs

The list of extreme events has been expanded to include wide-area events.

Status: Filed Delivery: 2011

Solution Details:

The list of extreme events has been expanded to include wide-area events.

DIRECTIVE: S- Ref 10428 - Tailor the purpose statement to reflect the specific goal of the standard.

Para 1835

"Tailor the purpose statement to reflect the specific goal of the standard."

Assigned: Project 2006-02 - Assess Transmission Future Needs

DIRECTIVE: S- Ref 10429 - Encourages NERC to utilize input from the Commissions technical conferences on regional planning as directed in Order No. 890 to improve this standard.

Para 1841

"Encourages NERC to utilize input from the Commissions technical conferences on regional planning as directed in Order No. 890 to improve this standard."

Assigned: Project 2006-02 - Assess Transmission Future Needs

The SDT utilized knowledge gained from the Commissions technical conferences and added a requirement TPL-001-2, Requirement R8.

Status: Filed Delivery: 2011

Solution Details:

The SDT utilized knowledge gained from the Commissions technical conferences and added a requirement TPL-001-2, Requirement 8 to facilitate the distribution of planning results and provide a mechanism for obtaining input from various entities.

DIRECTIVE: S- Ref 10430 - Para 1855. Since a reliability coordinator is the highest level of authority overseeing the reliability of the Bulk-Power System, the Commission believes that it is important to include the reliability coordinator as an applicable entity t

Para 1855

"Expand the applicability to include LSEs and reliability coordinators and define the reliability coordinators monitoring responsibilities. 1855. Since a reliability coordinator is the highest level of authority overseeing the reliability of the Bulk-Power System, the Commission believes that it is important to include the reliability coordinator as an applicable entity to assure that adequate voltage and reactive resources are being maintained. As MISO points out, other Reliability Standards address responsibilities of reliability coordinators, but we agree with EEI that it is important to include reliability coordinators in VAR-001-1 as well. Reliability coordinators have responsibilities in the IRO and TOP Reliability Standards, but not the specific responsibilities for voltage levels and reactive resources addressed by VAR-001-1, which have a great impact on system reliability. For example, voltage levels and reactive resources are important factors to ensure that IROs are valid and operating voltages are within limits, and that reliability coordinators should have responsibilities in VAR-001-1 to monitor that sufficient reactive resources are available for reliable system operations. Accordingly, the ERO should modify VAR-001-1 to include reliability coordinators as applicable entities and include a new requirement(s) that identifies the reliability coordinators monitoring responsibilities.""

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10431 - Address reactive power requirements for LSEs on a comparable basis with purchasing-selling entities

Para 1858

"Address reactive power requirements for LSEs on a comparable basis with purchasing-selling entities. Paragraph 1856. The Commission agrees with SoCal Edison that not all LSEs are purchasing-selling entities, because not all LSEs purchase or sell power from outside of their balancing authority area. This understanding is consistent with the NERC functional model and NERC glossary. Both LSEs and purchasing-selling entities should have some requirements to provide reactive power to appropriately compensate for the demand they are meeting for their customers. Neither a purchasing-selling entity nor a LSE should depend on the transmission operator to supply reactive power for their loads during normal or emergency conditions."

Assigned: Project 2010-12 - Order 693 Directives

Modified to be consistent.

Status: Filed Delivery: 2010

Solution Details:

Modified to be consistent. Simply added LSE to PSE requirements.

DIRECTIVE: S- Ref 10440 - Address the power factor range at the interface between LSEs and the transmission grid. Paragraph 1861. In the NOPR, the Commission asked for comments on acceptable ranges of net power factor at the interface at which the LSEs receive serv

Para 1862

"Address the power factor range at the interface between LSEs and the transmission grid. Paragraph 1861. In the NOPR, the Commission asked for comments on acceptable ranges of net power factor at the interface at which the LSEs receive service from the Bulk-Power System during normal and extreme load conditions. The Commission asked for these comments in response to concerns that during high loads, if the power factor at the interface between many LSEs and the Bulk-Power System is so low as to result in low voltages at key busses on the Bulk-Power System, then there is risk for voltage collapse. The Commission believes that Reliability Standard VAR-001-1 is an appropriate place for the ERO to take steps to address these concerns by setting out requirements for transmission owners and LSEs to maintain an appropriate power factor range at their interface. We direct the ERO to develop appropriate modifications to this Reliability Standard to address the power factor range at the interface between LSEs and the Bulk-Power System. 1862. We direct the ERO to include APPAs concern in the Reliability Standards development process. We note that transmission operators currently have access to data through their energy management systems to determine a range of power factors at which load operates during various conditions, and we suggest that the ERO use this type of data as a starting point for developing this modification. 1863. The Commission expects that the appropriate power factor range developed for the interface between the bulk electric system and the LSE from VAR-001-1 would be used as an input to the transmission and operations planning Reliability Standards. The range of power factors developed in this Reliability Standard provides the input to the range of power factors identified in the modifications to the TPL Reliability Standards. In the NOPR, the Commission suggested that sensitivity studies for the TPL Reliability Standards should consider the range of load power factors."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10432 - Include APPAs comments regarding varying power factor requirements due to system conditions and equipment in the standards development process.

Para 1862

"Include APPAs comments regarding varying power factor requirements due to system conditions and equipment in the standards development process."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10441 - The Commission expects that the appropriate power factor range developed for the interface between the bulk electric system and the LSE from VAR-001-1 would be used as an input to the transmission and operations planning Reliability Standar

Para 1863

"The Commission expects that the appropriate power factor range developed for the interface between the bulk electric system and the LSE from VAR-001-1 would be used as an input to the transmission and operations planning Reliability Standards. The range of power factors developed in this Reliability Standard provides the input to the range of power factors identified in the modifications to the TPL Reliability Standards. In the NOPR, the Commission suggested that sensitivity studies for the TPL Reliability Standards should consider the range of load power factors."

Assigned: Project 2008-01 - Voltage and Reactive Control

Considered - Address in Next Phase

Status: *In Drafting* Delivery: 2014

Solution Details:

Considered - Address in Next Phase

DIRECTIVE: S- Ref 10433 - In the NOPR, the Commission expressed concern that the technical requirements containing terms such as established limits or sufficient reactive resources are not definitive enough to address voltage instability and ensure reliable operatio

Para 1868

"In the NOPR, the Commission expressed concern that the technical requirements containing terms such as established limits or sufficient reactive resources are not definitive enough to address voltage instability and ensure reliable operations. To address this concern, the NOPR proposed directing the ERO to modify VAR-001-1 to include more detailed and definitive requirements on established limits and sufficient reactive resources and identify acceptable margins (i.e. voltage and/or reactive power margins) above voltage instability points to prevent voltage instability and to ensure reliable operations. We will keep this direction, and direct the ERO to include this modification in this Reliability Standard."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase Current drafting team to complete

DIRECTIVE: S- Ref 10434 - Para 1869 We recognize that our proposed modification does not identify what definitive requirements the Reliability Standard should use for established limits and sufficient reactive resources. Rather, the ERO should develop appropriate

Para 1869

"1869. We recognize that our proposed modification does not identify what definitive requirements the Reliability Standard should use for established limits and sufficient reactive resources. Rather, the ERO should develop appropriate requirements that address the Commissions concerns through the ERO Reliability Standards development process. The

Commission believes that the concerns of Dynegy, EEI and MISO are best addressed by the ERO in the Reliability Standards development process."

Assigned: Project 2008-01 - Voltage and Reactive Control

TBD

Status: In Drafting Delivery: 2014

Solution Details:

TBD

DIRECTIVE: S- Ref 10436 - Address the concerns of Dynegy, EEI, and MISO through the standards development process. Paragraph 1864. Dynegy supports the Commissions proposal to include more definitive requirements on established limits and sufficient reactive resourc

Para 1869

"Address the concerns of Dynegy, EEI, and MISO through the standards development process. Paragraph 1864. Dynegy supports the Commissions proposal to include more definitive requirements on established limits and sufficient reactive resources. It recommends that VAR-001-1 be further modified to require the transmission operator to have more detailed and definitive requirements when setting the voltage schedule and associated tolerance band that is to be maintained by the generator operator. Dynegy states that the transmission operator should not be allowed to arbitrarily set these values, but rather should be required to have a technical basis for setting the required voltage schedule and tolerance band that takes into account system needs and any limitations of the specific generator. Dynegy believes that such a requirement would eliminate the potential for undue discrimination, as well as the possibility of imposing overly conservative and burdensome voltage schedules and tolerance bands on generator operators that could be detrimental to grid reliability, or conversely, the imposition of too low a voltage schedule and too wide a tolerance band that could also be detrimental to grid reliability. 1865. While MISO supports the concept of including more detailed requirements, it believes that there needs to be a definitive reason for establishing voltage schedules and tolerances, and that any situations monitored in this Reliability Standard need to be limited to core reliability requirements. 1866. EEI seeks clarification about whether the Commission is suggesting that reactive requirements should aim for significantly greater precision, especially in terms of planning for various emergency conditions. If so, EEI cautions the Commission against putting too many eggs in the reactive power basket.⁴⁷⁴ To the extent compliance takes place pursuant to all other modeling and planning assessments under the other Reliability Standards, EEI strongly believes that the Commission should have some high level of confidence that the systems reactive power needs can be met satisfactorily across a broad range of contingencies that planners might reasonably anticipate. Moreover, EEI believes that requirements to successfully predict reactive power requirements in conditions of near-system collapse would require significantly more creative guesswork than solid analysis and contingency planning. For example, EEI notes that the combinations and permutations of how a voltage collapse could occur on a system as large as the eastern Interconnection are numerous. 1867. EEI suggests that, alternatively, the Commission should consider that reactive power evaluations should be conducted within a process that is documented in detail and includes a range of contingencies that might be reasonably anticipated, because this would avoid the one size fits all problem, where a prescriptive analytical methodology does not fit with a particular system configuration. EEI believes that this flexible approach would provide a more effective planning tool for the industry, while satisfying the Commissions concerns over potentially inadequate reactive reserves. MRO notes that the need for, and method of providing for, reactive resources varies greatly, and if this Reliability Standard is expanded it must be done carefully. MRO believes that all entities should not be required to follow the same methodology to accomplish the goal of a reliable system."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Current drafting team to complete

DIRECTIVE: S- Ref 10437 - Perform voltage analysis periodically, using on-line techniques where commercially available and off-line techniques where not available on-line, to assist real-time operations, for areas susceptible to voltage instability. Paragraph 1875.

Para 1875

"Perform voltage analysis periodically, using on-line techniques where commercially available and off-line techniques where not available on-line, to assist real-time operations, for areas susceptible to voltage instability. Paragraph 1875. In response to the concerns of APPA, SDG&E and EEI on the availability of tools, the Commission recognizes that transient voltage stability analysis is often conducted as an offline study, and that steady-state voltage stability analysis can be done online. The Commission clarifies that it does not wish to require anyone to use tools that are not validated for real-time operations. Taking these comments into consideration, the Commission clarifies its proposed modification from the NOPR. For the Final Rule, we direct the ERO, through its Reliability Standards development process, to modify Reliability Standard VAR-001-1 to include Requirements to perform voltage stability analysis periodically, using online techniques where commercially-available, and offline simulation tools where online tools are not available, to assist real-time operations. The ERO should consider the available technologies and software as it develops this modification to VAR-001-1 and identify a process to assure that the Reliability Standard is not limiting the application of validated software or other tools."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Current drafting team to complete

DIRECTIVE: S- Ref 10439 - we expect the ERO to consider the comments of SoCal Edison with regard to reliability and SMA in its process for developing the technical capability requirements for using controllable load as a reactive resource in the applicable Reliability

Para 1879

"we expect the ERO to consider the comments of SoCal Edison with regard to reliability and SMA in its process for developing the technical capability requirements for using controllable load as a reactive resource in the applicable Reliability Standards"

Assigned: Project 2010-12 - Order 693 Directives

Issues considered.

Status: *Filed* Delivery: 2012

Solution Details:

Issues considered.

DIRECTIVE: S- Ref 10438 - Include controllable load among the reactive resources to satisfy reactive requirements, considering the comments of Southern California Edison and SMA in the development of the standard. Paragraph 1879. The Commission noted in the NOPR th

Para 1879

"Include controllable load among the reactive resources to satisfy reactive requirements, considering the comments of Southern California Edison and SMA in the development of the standard. Paragraph 1879. The Commission noted in the NOPR that in many cases, load response and demand-side investment can reduce the need for reactive power capability in the system.⁴⁷⁶ Based on this assertion, the Commission proposed to direct the ERO to include controllable load among the reactive resources to satisfy reactive requirements for incorporation into Reliability Standard VAR-001-1. While we affirm this requirement, we expect the ERO to consider the comments of SoCal Edison with regard to reliability and SMA in its process for developing the technical capability requirements for using controllable load as a reactive resource in the applicable Reliability Standards. 1877. SMA supports adoption of the proposal to include controllable load as a reactive resource. SMA notes that its members facilities often include significant capacitor banks, and further, reducing load can reduce local reactive

requirements. 1878. SoCal Edison suggests caution regarding the Commissions proposal to include controllable load as a reactive resource. It agrees that, when load is reduced, voltage will increase and for that reason controllable load can lessen the need for reactive power. However, SoCal Edison believes that controllable load is typically an energy product and there are other impacts not considered by the Commissions proposal to include controllable load as a reactive resource. For example, activating controllable load for system voltage control lessens system demand, requiring generation to be backed down. It is not clear to SoCal Edison whether any consideration has been given to the potential reliability or commercial impacts of the Commissions proposal."

Assigned: Project 2010-12 - Order 693 Directives

DIRECTIVE: S- Ref 10442 - Consider Dynegys suggestion to improve the standard. Paragraph 1883. Dynegy believes that VAR-002-1 should be modified to require more detailed and definitive requirements when defining the time frame associated with an incident of non com

Para 1885

"Consider Dynegys suggestion to improve the standard. Paragraph 1883. Dynegy believes that VAR-002-1 should be modified to require more detailed and definitive requirements when defining the time frame associated with an incident of non compliance (i.e., each 4-second scan, 10-minute integrated value, hourly integrated value). Dynegy states that, as written, this Reliability Standard does not define the time frame associated with an incident of non-compliance, but apparently leaves this decision to the transmission operator. Dynegy believes that either more detail should be added to the Reliability Standard to cure this omission, or the Reliability Standard should require the transmission operator to have a technical basis for setting the time frame that takes into account system needs and any limitations of the generator. Dynegy believes that this approach will eliminate the potential for undue discrimination and the imposition of overly conservative or excessively wide time frame requirements, both of which could be detrimental to grid reliability."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10003 - Include the statutory definition for Reliable Operation to the NERC Glossary.

Para 1894

"Include the statutory definition for Reliable Operation to the NERC Glossary."

Assigned: Project 2012-08 - Glossary Updates

DIRECTIVE: S- Ref 10004 - Include the statutory definition for Reliability Standard to the NERC Glossary.

Para 1894

"Include the statutory definition for Reliability Standard to the NERC Glossary."

Assigned: Project 2012-08 - Glossary Updates

DIRECTIVE: S- Ref 10002 - Include the statutory definition for Bulk Power System to the NERC Glossary.

Para 1894

"Include the statutory definition for Bulk Power System to the NERC Glossary."

Assigned: Project 2012-08 - Glossary Updates

DIRECTIVE: S- Ref 10005 - The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of generator operator to reflect concerns of the commenters and the direction ["to include aspects unique to ISOs, RTOs and pooled resource organizations"] provided by the Commission in other sections of FERC Order 693.

Para 1895 (See also Para 1887 and Para 130-145)

"The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of transmission operator and generator operator to reflect concerns of the commenters and the direction provided by the Commission in other sections of this Final Rule. The Commission is concerned that there not be any gaps or unnecessary overlaps of responsibilities concerning any of the Requirements in the Reliability Standards that are applicable to transmission operators and generator operators."

Assigned: Project 2012-08 - Glossary Updates

DIRECTIVE: S- Ref 10006 - The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of transmission operator to reflect concerns of the commenters and the direction ["to include aspects unique to ISOs, RTOs and pooled resource organizations"] provided by the Commission in other sections of FERC Order 693.

Para 1895 (See also Para 1887 and Para 130-145)

"The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of transmission operator and generator operator to reflect concerns of the commenters and the direction provided by the Commission in other sections of this Final Rule. The Commission is concerned that there not be any gaps or unnecessary overlaps of responsibilities concerning any of the Requirements in the Reliability Standards that are applicable to transmission operators and generator operators."

Assigned: Project 2012-08 - Glossary Updates

DIRECTIVE: S- Ref 10001 - Modify the term Operating Reserves in the NERC Glossary based on discussion in BAL002 and BAL-005

Para 1896

"Modify the term Operating Reserves in the NERC Glossary based on discussion in BAL002 and BAL-005"

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10008 - Regional Differences to BAL-001-0: ERCOT Control Performance Standard 2: Include requirements concerning frequency response contained in Section 5 of the ERCOT protocols. Paragraph 313. The Commission approves the ERCOT regional difference

Para 315

"Regional Differences to BAL-001-0: ERCOT Control Performance Standard 2: Include requirements concerning frequency response contained in Section 5 of the ERCOT protocols. Paragraph 313. The Commission approves the ERCOT regional difference as mandatory and enforceable. Order No. 672 explains that uniformity of Reliability Standards should be the goal and the practice, the rule rather than the exception. However, the Commission has stated that, as a general matter, regional differences are permissible if they are either more stringent than the continent-wide Reliability Standard, or if they are necessitated by a physical difference in the Bulk-Power System. Regional differences must still be just, reasonable, not unduly discriminatory or preferential and in the public interest. 314. The Commission finds that ERCOTs approach under section 5 of the ERCOT protocols appears to be a more stringent practice than Requirement R2 in BAL-001-0 and therefore approves the regional difference. 315. As proposed in the NOPR, the Commission directs the ERO to file a modification of the ERCOT regional difference to include the requirements concerning frequency response contained in section 5 of the ERCOT protocols. As with other new regional differences, the Commission expects that the

ERCOT regional difference will include Requirements, Measures and Levels of Non-Compliance sections."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

DIRECTIVE: S- Ref 10010 - Substitute regional entity for regional reliability organization as the compliance monitor

Para 321

"Substitute regional entity for regional reliability organization as the compliance monitor"

Assigned: Project 2010-12 - Order 693 Directives

Modified as suggested.

Status: Filed Delivery: 2010

Solution Details:

Modified as suggested.

DIRECTIVE: S- Ref 10009 - Modify to make requirements R4.2 and R6.2 refer to NERC rather than the NERC Operating Committee.

Para 321

"Modify to make requirements R4.2 and R6.2 refer to NERC rather than the NERC Operating Committee."

Assigned: Project 2010-12 - Order 693 Directives

Removed ability to change w/o using process.

Status: Filed Delivery: 2010

Solution Details:

Removed ability to change w/o using process.

DIRECTIVE: S- Ref 10011 - Include a requirement that explicitly provides that DSM may be used as a resource for contingency reserves.

Para 330

"Include a requirement that explicitly provides that DSM may be used as a resource for contingency reserves."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

DIRECTIVE: S- Ref 10012 - Include a continent-wide contingency reserve policy

Para 340

"Include a continent-wide contingency reserve policy"

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-012-1 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-012-1 standard.

DIRECTIVE: S- Ref 10013 - Address Commission concerns about having enough contingency reserves to respond to an event on the system in requirement 3.1 and how such reserves are measured.

Para 351

"Address Commission concerns about having enough contingency reserves to respond to an event on the system in requirement 3.1 and how such reserves are measured."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.
Status: In Drafting Delivery: 2013
Solution Details:
The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

DIRECTIVE: S- Ref 10014 - Requires any single reportable disturbance that has a recovery time of 15 minutes or longer be reported as a violation.

Para 354

"Requires any single reportable disturbance that has a recovery time of 15 minutes or longer be reported as a violation."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.
Status: In Drafting Delivery: 2013
Solution Details:
The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

DIRECTIVE: S- Ref 10015 - Define a significant (frequency) deviation and a reportable event, taking into account all events that have an impact on frequency, and how balancing authorities should respond.

Para 355

"Define a significant (frequency) deviation and a reportable event, taking into account all events that have an impact on frequency, and how balancing authorities should respond."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard definition of "Balancing Contingency Event" and in BAL-012-1 standard Requirements R3 and R6.
Status: In Drafting Delivery: 2013
Solution Details:
The SDT is addressing this in the draft of the proposed BAL-002-2 standard definition of "Balancing Contingency Event" and in BAL-012-1 standard Requirements R3 and R6.

DIRECTIVE: S- Ref 10016 -Determine the appropriate periodicity of frequency response surveys necessary to ensure requirement R2 and other requirements are being met; also modify measure M1 based on this determination.

Due 5/31/2012

Para 369

"Determine the appropriate periodicity of frequency response surveys necessary to ensure requirement R2 and other requirements are being met; also modify measure M1 based on this determination."

Assigned: Project 2007-12 - Frequency Response

The SDT is addressing this in the draft of the proposed BAL-003-1 standard.
Status: In Drafting Delivery: 2011
Solution Details:
The SDT is defining the amount of Frequency Response necessary for reliable operation, defining the methods for obtaining Frequency Response, measuring Frequency Response and the periodicity of Frequency Response Surveys within the draft BAL-003-1 standard.

DIRECTIVE: S- Ref 10017 - Define the necessary amount of frequency response needed for reliable operation for each balancing authority with methods of obtaining and measuring that the frequency response is achieved.

Due 5/31/2012

Para 372

"The Commission is not persuaded by the commenters. We conclude that the minimum frequency response needed for Reliable Operation should be defined and methods of obtaining the frequency response identified. In addition to the ERCOT experience, EEI provides an additional example that underscores the Commission's concern in this area with its discussion of the ISO-NE frequency oscillations resulting from the August 14, 2003 blackout. Severe oscillations were observed in the ISO-NE frequency when it separated from the Eastern

Interconnection during the August 14, 2003 blackout. (see Footnote 177 of Order 693) The ISO-NE operators acted quickly to reduce the bias setting so as to eliminate the self-induced frequency oscillations before they affected system reliability. This apparent mismatch between the bias and the actual frequency response might have caused the ISO-NE system to cascade if it had not been for the quick actions of its operators. Therefore, we direct the ERO to either modify this Reliability Standard or develop a new Reliability Standard that defines the necessary amount of frequency response needed for Reliable Operation and methods of obtaining and measuring that frequency response is available."

Assigned: Project 2007-12 - Frequency Response

The SDT is addressing this in the draft of the proposed BAL-003-1 standard.

Status: In Drafting Delivery: 2011

Solution Details:

The SDT is defining the amount of Frequency Response necessary for reliable operation, defining the methods for obtaining Frequency Response, measuring Frequency Response and the periodicity of Frequency Response Surveys within the draft BAL-003-1 standard.

DIRECTIVE: S- Ref 10021 - Modify BAL-003 to include Levels of Non-Compliance

Due 3/4/2008

Para 375

"Modify BAL-003 to include Levels of Non-Compliance"

Assigned: Project 2007-23 - Violation Severity Levels

Complete Levels of Non-compliance have been replaced by Violation Severity Levels

Status: Filed Delivery: 2008

Solution Details:

Complete Levels of Non-compliance have been replaced by Violation Severity Levels

DIRECTIVE: S- Ref 10022 - Include levels of non-compliance and additional measures for requirement R3.

Para 382

"Include levels of non-compliance and additional measures for requirement R3."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10023 - In the five-year review cycle of the standard, perform research that would provide a technical basis for the present or any alternative approach that is more effective and helps reduce inadvertent interchange.

Para 385

"Although the Commission noted in the NOPR that WECCs time error correction procedure appears to serve as a more effective means of accomplishing time error correction, based on concerns that there is no engineering basis for changing the time error correction to the WECC approach, the Commission will not direct the ERO to adopt requirements similar to WECCs procedure. With the exception of comments from APPA and EEI, most commenters do not believe or are uncertain about whether the WECC procedure is appropriate for the Eastern Interconnection. However, when this Reliability Standard is scheduled for its regular five-year cycle of review, the Commission directs the ERO to perform whatever research it and the industry believe is necessary to provide a sound technical basis for either continuing with the present practice or identifying an alternative practice that is more effective and helps reduce inadvertent interchange."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

*Solution Details:
Moved from Phase 1 (Project 2010-14.1)*

DIRECTIVE: S- Ref 10029 - Develop a process to calculate the minimum regulating reserve for a balancing authority, taking into account expected load and generation variation and transactions being ramped in and out.

Para 396

"Develop a process to calculate the minimum regulating reserve for a balancing authority, taking into account expected load and generation variation and transactions being ramped in and out."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

SDT believes that BAL-001-1 Requirement R2-BAAL and BAL-012-1 Operating Reserve standard will address.

Status: In Drafting Delivery: 2013

Solution Details:

SDT believes that BAL-001-1 Requirement R2-BAAL and BAL-012-1 Operating Reserve standard will address.

DIRECTIVE: S- Ref 10030 - Change title to be neutral as to the source of regulating reserves and allows the inclusion of technically qualified DSM.

Para 404

"Change title to be neutral as to the source of regulating reserves and allows the inclusion of technically qualified DSM."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

DIRECTIVE: S- Ref 10033 - Para 406. Given that most of the commenters concerns over the inclusion of DSM as part of regulating reserves relate to the technical requirements, the Commission clarifies that to qualify as regulating reserves, these resources must be tec

Para 406

"406. Given that most of the commenters concerns over the inclusion of DSM as part of regulating reserves relate to the technical requirements, the Commission clarifies that to qualify as regulating reserves, these resources must be technically capable of providing the service. In particular, all resources providing regulation must be capable of automatically responding to real-time changes in load on an equivalent basis to the response of generation equipped with automatic generation control. From the examples provided above, the Commission understands that it may be technically possible for DSM to meet equivalent requirements as conventional generators and expects the Reliability Standards development process to provide the qualifications they must meet to participate. These qualifications will be reviewed by the Commission when the revised Reliability Standard is submitted to the Commission for approval."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10031 - Address comments of Xcel and FirstEnergy when the standard is revisited in the work plan. Xcel requests that the Commission reconsider Requirement R17 of this Reliability Standard stating that the accuracy ratings for older equipment (cu

Para 415

"Address comments of Xcel and FirstEnergy when the standard is revisited in the work plan."

Xcel requests that the Commission reconsider Requirement R17 of this Reliability Standard stating that the accuracy ratings for older equipment (current and potential transformers) may be difficult to determine and may require the costly replacement of this older equipment on combustion turbines and older units while adding little benefit to reliability. Xcel states that the Commission should clarify that Requirement R17 need only apply to interchange metering of the balancing area in those cases where errors in generating metering are captured in the imbalance responsibility calculation of the balancing area.

FirstEnergy suggests that a single entity should have the responsibility to establish, through an annual review process, the level of regulating reserves that a balancing authority must maintain pursuant to the control performance standard requirements.

FirstEnergy suggests that all generators and technically qualified DSM that participate in energy markets should install automatic generation control as a condition of market participation. In non-market areas, FirstEnergy suggests that balancing authorities could meet requirements through bilateral contracts or the normal scheduling process and suggests that the Commission might have to assert its jurisdiction and order technically qualified DSM providers to install automatic generation control at their facilities. FirstEnergy states that further work would need to be conducted on the technical qualifications and capacity thresholds that would control whether installation of automatic generation control would be required.

FirstEnergy states that Requirement R17 should include only control center devices instead of devices at each substation. FirstEnergy states that accuracy at the substation level is unnecessary and the costs to install automatic generation control equipment at each substation would be high. FirstEnergy also states that the term check in Requirement R17 needs to be clarified."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10034 - Include a measure that provides for a verification process over the required automatic generation control, or regulating reserves a balancing authority maintains

Para 418

"Include a measure that provides for a verification process over the required automatic generation control, or regulating reserves a balancing authority maintains"

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10035 - The ERO is directed to consider those (FirstEnergy) suggestions in its Reliability Standards development process.

Para 419

"The ERO is directed to consider those (FirstEnergy) suggestions in its Reliability Standards development process."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10036 - Add measures concerning the accumulation of large inadvertent interchange balances and levels of non-compliance.

Para 428

"Add measures concerning the accumulation of large inadvertent interchange balances and levels of non-compliance."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10037 - Examine the WECC time error correction procedure as a possible guide..the Commission asks the ERO, when filing the new Reliability Standard, to explain how the new Reliability Standard satisfies the Commissions concerns

Para 438

"Examine the WECC time error correction procedure as a possible guide..the Commission asks the ERO, when filing the new Reliability Standard, to explain how the new Reliability Standard satisfies the Commissions concerns"

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10038 - Regional Differences to BAL-006-1: Inadvertent Interchange Accounting and Financial Inadvertent Settlement: Explore FirstEnergys request to define the function of a waiver in the reliability standard development process.

Para 444

"Regional Differences to BAL-006-1: Inadvertent Interchange Accounting and Financial Inadvertent Settlement: Explore FirstEnergys request to define the function of a waiver in the reliability standard development process."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10039 - Consider the need for wider application of the standard. Consider whether separate, less burdensome requirements for smaller entities may be appropriate. Paragraph 458. The Commission acknowledges the concerns of the commenters about the

Para 460

"Consider the need for wider application of the standard. Consider whether separate, less burdensome requirements for smaller entities may be appropriate. Paragraph 458. The Commission acknowledges the concerns of the commenters about the applicability of CIP-001-1 to small entities and has addressed the concerns of small entities generally earlier in this Final Rule. Our approval of the ERO Compliance Registry criteria to determine which users, owners and operators are responsible for compliance addresses the concerns of APPA and others. 459. However, the Commission believes that there are specific reasons for applying this Reliability Standard to such entities, as discussed in the NOPR. APPA indicates that some small LSEs do not own or operate hard assets that are normally thought of as at risk to sabotage. The Commission is concerned that, an adversary might determine that a small LSE is the appropriate target when

the adversary aims at a particular population or facility. Or an adversary may target a small user, owner or operator because it may have similar equipment or protections as a larger facility, that is, the adversary may use an attack against a smaller facility as a training exercise. The knowledge of sabotage events that occur at any facility (including small facilities) may be helpful to those facilities that are traditionally considered to be the primary targets of adversaries as well as to all members of the electric sector, the law enforcement community and other critical infrastructures. 460. For these reasons, the Commission remains concerned that a wider application of CIP-001-1 may be appropriate for Bulk-Power System reliability. Balancing these concerns with our earlier discussion of the applicability of Reliability Standards to smaller entities, we will not direct the ERO to make any specific modification to CIP-001-1 to address applicability. However, we direct the ERO, as part of its Work Plan, to consider in the Reliability Standards development process, possible revisions to CIP-001-1 that address our concerns regarding the need for wider application of the Reliability Standard. Further, when addressing such applicability issues, the ERO should consider whether separate, less burdensome requirements for smaller entities may be appropriate to address these concerns."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Attachment 1 defines the timelines and events which are to be reported under this standard.

Status: *In Drafting* Delivery: 2012

Solution Details:

Attachment 1 defines the timelines and events which are to be reported under this standard. The applicable entities are also identified for each type of event.

DIRECTIVE: S- Ref 10045 - Further, in the interim while the matter is being addressed by the Reliability Standards development process, we direct the ERO to provide advice to entities that have concerns about the reporting of particular circumstances as they arise.

Para 461

"Further, in the interim while the matter is being addressed by the Reliability Standards development process, we direct the ERO to provide advice to entities that have concerns about the reporting of particular circumstances as they arise."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: *Filed* Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10040 - Define sabotage and provide guidance on triggering events that would cause an entity to report an event. Paragraph 461. Several commenters agree with the Commissions concern that the term sabotage should be defined. For the reasons stated

Para 461

"Define sabotage and provide guidance on triggering events that would cause an entity to report an event. Paragraph 461. Several commenters agree with the Commissions concern that the term sabotage should be defined. For the reasons stated in the NOPR, we direct that the ERO further define the term and provide guidance on triggering events that would cause an entity to report an event. However, we disagree with those commenters that suggest the term sabotage is so vague as to justify a delay in approval or the application of monetary penalties. As explained in the NOPR, we believe that the term sabotage is commonly understood and that common understanding should suffice in most instances"

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

The DSR SDT has not proposed a definition for inclusion in the NERC Glossary because it is impractical to define every event that should be reported without listing them in the definition.

Status: *In Drafting* Delivery: 2012

Solution Details:

The DSR SDT has not proposed a definition for inclusion in the NERC Glossary because it is impractical to define every event that should be reported without listing them in the definition. Attachment 1 is the de facto definition of event. The DSR SDT considered the FERC directive to further define sabotage and decided to eliminate the term sabotage from the standard. The team felt that without the intervention of law enforcement after the fact, it was almost impossible to

determine if an act or event was that of sabotage or merely vandalism. The term sabotage is no longer included in the standard and therefore it is inappropriate to attempt to define it. The events listed in Attachment 1 provide guidance for reporting both actual events as well as events which may have an impact on the Bulk Electric System. The DSR SDT believes that this is an equally effective and efficient means of addressing the FERC Directive.

DIRECTIVE: S- Ref 10041 - Consider FirstEnergy's suggestions to differentiate between cyber and physical security sabotage and develop a threshold of materiality. Paragraph 451. A number of commenters agree with the Commissions concern that the term sabotage needs to

Para 462

"Consider FirstEnergy's suggestions to differentiate between cyber and physical security sabotage and develop a threshold of materiality. Paragraph 451. A number of commenters agree with the Commissions concern that the term sabotage needs to be better defined and guidance provided on the triggering events that would cause an entity to report an event. FirstEnergy states that this definition should differentiate between cyber and physical sabotage and should exclude unintentional operator error. It advocates a threshold of materiality to exclude acts that do not threaten to reduce the ability to provide service or compromise safety and security. SoCal Edison states that clarification regarding the meaning of sabotage and the triggering event for reporting would be helpful and prevent over-reporting."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

This is addressed in Attachment 1.

Status: In Drafting Delivery: 2012

Solution Details:

This is addressed in Attachment 1. There are specific event types for both cyber and physical security with their respective report submittal requirements.

DIRECTIVE: S- Ref 10042 - The Commission affirms the NOPR directive and directs the ERO to incorporate a periodic review or updating of the sabotage reporting procedures and for the periodic testing of the sabotage reporting procedures. At this time, the Commission

Para 466

"The Commission affirms the NOPR directive and directs the ERO to incorporate a periodic review or updating of the sabotage reporting procedures and for the periodic testing of the sabotage reporting procedures. At this time, the Commission does not specify a review period as suggested by FirstEnergy and MRO and, rather, believes that the appropriate period should be determined through the EROs Reliability Standards development process. However, the Commission directs that the ERO begin this process by considering a staggered schedule of annual testing of the procedures with modifications made when warranted formal review of the procedures every two or three years."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

The standard is responsive this directive with the following language in Requirement R1:

Status: In Drafting Delivery: 2012

Solution Details:

The standard is responsive this directive with the following language in Requirement R1:

1.3 Provisions for an annual test of the communications process in Part 1.2 and an annual review of the Operating Plan.

The DSR SDT envisions that this will include verification that contact information contained in the Operating Plan is correct. As an example, the annual update of the Operating Plan could include calling others as defined in the Responsibility Entity's Operating Plan (see Part 1.2) to verify that their contact information is correct and current. If any discrepancies are noted, the Operating Plan would be updated.

DIRECTIVE: S- Ref 10043 - Include a requirement to report a sabotage event to the proper government authorities. Develop the language to specifically implement this directive. Paragraph 467. CIP-001-1, Requirement R4, requires that each applicable entity establish

Para 468

"Include a requirement to report a sabotage event to the proper government authorities. Develop the language to specifically implement this directive. Paragraph 467. CIP-001-1,

Requirement R4, requires that each applicable entity establish communications contacts, as applicable, with the local FBI or Royal Canadian Mounted Police officials and develop reporting procedures as appropriate to its circumstances. The Commission in the NOPR expressed concern that the Reliability Standard does not require an applicable entity to actually contact the appropriate governmental or regulatory body in the event of sabotage. Therefore, the Commission proposed that NERC modify the Reliability Standard to require an applicable entity to contact appropriate federal authorities, such as the Department of Homeland Security, in the event of sabotage within a specified period of time.^{212 468}. As mentioned above, NERC and others object to the wording of the proposed directive as overly prescriptive and note that the reference to appropriate federal authorities fails to recognize the international application of the Reliability Standard.

The example of the Department of Homeland Security as an appropriate federal authority was not intended to be an exclusive designation. Nonetheless, the Commission agrees that a reference to federal authorities could create confusion. Accordingly, we modify the direction in the NOPR and now direct the ERO to address our underlying concern regarding mandatory reporting of a sabotage event. The EROs Reliability Standards development process should develop the language to implement this directive."⁴

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

Also see Background section of Standard. A proposal discussed with FBI, FERC Staff, NERC Standards Project Coordinator and SDT Chair is reflected in the flowchart below (Reporting Hierarchy for Event EOP-004-2). Essentially, reporting an event to law enforcement agencies will only require the industry to notify the state or provincial level law enforcement agency. The state or provincial level law enforcement agency will coordinate with local law enforcement to investigate. If the state or provincial level law enforcement agency decides federal agency law enforcement or the RCMP should respond and investigate, the state or provincial level law enforcement agency will notify and coordinate with the FBI or the RCMP.

DIRECTIVE: S- Ref 10044 - We direct the ERO to explore ways to address these concerns including central coordination of sabotage reports and a uniform reporting format in developing modifications to the Reliability Standard with the appropriate governmental agency

Para 469

"We direct the ERO to explore ways to address these concerns including central coordination of sabotage reports and a uniform reporting format in developing modifications to the Reliability Standard with the appropriate governmental agencies that have levied the reporting requirements."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

DIRECTIVE: S- Ref 10046 - Modify CIP-001-1 to require an applicable entity to contact appropriate governmental authorities in the event of sabotage within a specific period of time, even if it is a preliminary report.

Para 470

"Modify CIP-001-1 to require an applicable entity to contact appropriate governmental authorities in the event of sabotage within a specific period of time, even if it is a preliminary report."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies and Attachment 1 specifies the timeframe required for reporting.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies and Attachment 1 specifies the timeframe required for reporting. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

DIRECTIVE: S- Ref 10048 - Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. TAPS Paragraph 483. TAPS states that Requirement R1.4 has an ambiguous requirement that, if applied to distribution providers and generat

Due 6/29/2012

Para 491

"Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. TAPS Paragraph 483. TAPS states that Requirement R1.4 has an ambiguous requirement that, if applied to distribution providers and generator operators, would impose redundancy requirements well beyond what is reasonably necessary for Bulk-Power System reliability. Further it asserts that the NOPR provides no basis for expanding the Reliability Standard to small entities, such as a 2-MW distribution provider or generator, much less than one that has no connection to the bulk transmission system. Finally, TAPS contends that, in making this proposal, the Commission is over-stepping its bounds by not leaving it to the EROs expert judgment whether COM-001-1 has sufficient coverage to protect Bulk-Power System reliability and states that, in any event, applicability should be limited through NERCs registry criteria and definition of bulk electric system."

Assigned: Project 2006-06 - Reliability Coordination

No requirement for redundancy; Added R7 R8

Status: In Drafting Delivery: 2012

Solution Details:

COM-001-1 There is no requirement for redundancy for Generator Operators or Distribution Providers.

The RCSDT added a proposed new requirements:

R7. Each Distribution Provider shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R7.1. Its Transmission Operator

R7.2. Its Balancing Authority.

R8. Each Generator Operator shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R8.1. Its Balancing Authority

R8.2. Its Transmission Operator.

There are also requirements for the TOP and BA to have Interpersonal Communications capability with the DP and GOP.

DIRECTIVE: S- Ref 10047 - Include generator operators and distribution providers in the list of applicable entities and create appropriate requirements for them. Paragraph 487. The Commission reaffirms its position that generator operators and distribution provider

Due 6/29/2012

Para 493 Sen 4

"Para 493

As we explained in the NOPR, communication with generator operators and distribution providers becomes especially important during an emergency when generators with black start capability must be placed in service and nearby loads restored as an initial step in system restoration. This occurs at a critical time when normal communication paths may be disrupted. While many generator operators and distribution providers may have telecommunications requirements pursuant to a bilateral contract as indicated by APPA, it is important that all generator operators and distribution providers identified by the ERO through its registration process are subject to uniform telecommunications requirements. Therefore, we adopt our proposal to require the ERO to modify COM-001-1 to apply to generator operators and distribution providers. However, we recognize that some of the existing requirements (such as Requirement R6 related to NERCNet) need not apply to generator operators and distribution providers. In light of commenters concerns, as an alternative, it would be acceptable for the ERO to develop a new Reliability Standard that would specifically address an appropriate range of Requirements for telecommunication facilities of generator operators and distribution providers that reflect their respective roles on Reliable Operation of the Bulk-Power System.

Para 487

The Commission reaffirms its position that generator operators and distribution providers should be included as applicable entities in COM-001-1 to ensure there is no reliability gap during normal and emergency operations. For example, during a blackstart when normal communications may be disrupted, it is essential that the transmission operator, balancing authority and reliability coordinator maintain communications with their distribution providers and generator operators. However, the current version of Reliability Standard COM-001-1 does not require this because it does not include generator operators and distribution providers as applicable entities. We clarify that the NOPR did not propose to require redundancy on generator operators or distribution providers telecommunication facilities or that generator operators or distribution providers be trained on anything not related to their functions during normal and emergency conditions. We expect the telecommunication requirements for all applicable entities will vary according to their roles and that these requirements will be developed under the Reliability Standards development process.

"

Assigned: Project 2006-06 - Reliability Coordination

New Requirements R7 and R8

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has proposed new requirements:

R7.Each Distribution Provider shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R7.1.Its Transmission Operator

R7.2.Its Balancing Authority.

R8.Each Generator Operator shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R8.1. Its Balancing Authority

R8.2.Its Transmission Operator.

There are also requirements for the TOP and BA to have Interpersonal Communications capability with the DP and GOP.

DIRECTIVE: S- Ref 10049 - Specify requirements for using telecommunication facilities during normal and emergency conditions that reflect the roles of the applicable entities and their impact of reliable operation, and include adequate flexibility. Paragraph 490. I

Para 503

"Specify requirements for using telecommunication facilities during normal and emergency conditions that reflect the roles of the applicable entities and their impact of reliable operation, and include adequate flexibility. Paragraph 490. In response to SDG&E, the Commissions intent is not to subject generator operators and distribution providers to the same requirements placed on transmission operators. As part of the modification of this Reliability Standard or development of a new Reliability Standard to include the appropriate telecommunications facility requirements for generator operators and distribution providers, the ERO should take into account what would be required of generator operators and distribution providers in terms of telecommunications for the Reliable Operation of the Bulk-Power System, instead of applying the same requirements as are placed on other reliability entities such as reliability coordinators, balancing authorities and transmission operators.""

Assigned: Project 2006-06 - Reliability Coordination

Covered in COM-001 requirements R3, R5, R7 and R8

Status: In Drafting Delivery: 2012

Solution Details:

Covered in COM-001 requirements R3, R5, R7 and R8

DIRECTIVE: S- Ref 10050 - Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. Entergy Paragraph 499. Entergy states that it is unclear what cyber assets are covered by COM-001-0. Entergy believes that the Reliability

Para 503/504

"Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. Entergy Paragraph 499. Entergy states that it is unclear what cyber assets are covered by COM-001-0. Entergy believes that the Reliability Standard should focus on telecommunications that support the operation of critical assets. Entergy also believes that COM-001-0 should be expanded to include advances in communications technology. It states that NERC should consider addressing the following in a way that will facilitate an understanding of the Reliability Standards requirements: (1) voice communications; (2) command and control data communications; (3) security coordination data communications; (4) digital messaging communications; (5) human linguistic convention and (6) other types of communications, including video conferencing and communications with remote security cameras. Entergy believes that this could be accomplished through an enhancement to the definition of communications in the NERC glossary and recasting COM-001-0 to improve the specificity of requirements for each form of communication. Finally, Entergy believes that Requirement R4 of COM-001-0, which requires reliability coordinators, transmission operators and balancing authorities to use English in all types of communications, should apply only to verbal and written communications."

Assigned: Project 2006-06 - Reliability Coordination

Addressed in IRO-010

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT received several stakeholder comments during the first posting of the draft standard regarding the intent of the term telecommunications facilities. For COM-001-2, the RC SDT envisions telecommunications to be voice or message communication between operating personnel. The standard has been renamed Communications and the term telecommunications facilities was replaced with Interpersonal Communications capabilities and Alternative Interpersonal Communications capabilities throughout the standards to better reflect the intent of the RCSDT. The data exchange provisions and infrastructure are addressed in the IRO-010 standard.

DIRECTIVE: S- Ref 10051 - Although we direct that the regional reliability organization should not be the compliance monitor for NERCNet, we leave it to the ERO to determine whether it is the appropriate compliance monitor or if compliance should be monitored by the

Para 507

"Although we direct that the regional reliability organization should not be the compliance monitor for NERCNet, we leave it to the ERO to determine whether it is the appropriate compliance monitor or if compliance should be monitored by the Regional Entities for NERCNet User Organizations"

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

Should this be a NERC staff decision?

Status: *In Drafting* Delivery: 2013

Solution Details:

Should this be a NERC staff decision?

DIRECTIVE: S- Ref 10052 - Include distribution providers in the list of applicable entities.

Para 512

"Include distribution providers in the list of applicable entities."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

Included the Distribution Service Provider in Applicability section of new proposed COM-003-1 Standard. Future phase

Status: *In Drafting* Delivery: 2013

Solution Details:

Included the Distribution Service Provider in Applicability section of new proposed COM-003-1 Standard. Future phase

DIRECTIVE: S- Ref 10053 - Address APPAs concern through the standard development process.

Para 515

"Address APPAs concern through the standard development process."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

The OPCP SDT makes DP subject to new COM-003 Standard. The SDT also asks industry for feedback on potentially applying COM-003 to LSE and TSP in its initial posting Comment Form. Not a drafting team issue.

Status: *In Drafting* Delivery: 2013

Solution Details:

The OPCP SDT makes DP subject to new COM-003 Standard. The SDT also asks industry for feedback on potentially applying COM-003 to LSE and TSP in its initial posting Comment Form. Not a drafting team issue.

DIRECTIVE: S- Ref 10054 - Include a requirement for the reliability coordinator to assess and approve only those actions that have impacts beyond the area views of the transmission operators and balancing authorities. Include how to determine whether an action need

Para 520

"Include a requirement for the reliability coordinator to assess and approve only those actions that have impacts beyond the area views of the transmission operators and balancing authorities. Include how to determine whether an action needs to be assessed by the reliability coordinator."

Assigned: Project 2006-06 - Reliability Coordination

DIRECTIVE: S- Ref 10055 - Consider Xcels suggestion that the entity taking operating actions should not be held responsible for the delays caused by the reliability coordinators assessment and approval.

Para 523

"Consider Xcels suggestion that the entity taking operating actions should not be held responsible for the delays caused by the reliability coordinators assessment and approval."

Assigned: Project 2006-06 - Reliability Coordination

DIRECTIVE: S- Ref 10056 - Establish tightened communication protocols, especially for communications during alerts and emergencies. Establish uniformity to the extent practical on a continent-wide basis.

Para 531

"Establish tightened communication protocols, especially for communications during alerts and emergencies. Establish uniformity to the extent practical on a continent-wide basis."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

OPCP SDT developed a new proposed COM-003-1 Standard Communications Protocols to ensure that reliability-related information is conveyed effectively, accurately, consistently, in a timely manner and to ensure mutual understanding for all key parties, espe

Status: In Drafting Delivery: 2013

Solution Details:

OPCP SDT developed a new proposed COM-003-1 Standard Communications Protocols to ensure that reliability-related information is conveyed effectively, accurately, consistently, in a timely manner and to ensure mutual understanding for all key parties, especially during alerts and emergencies. Will use definition of Reliability Directive as proposed by Project 2006-06 Current drafting team to complete

DIRECTIVE: S- Ref 10058 - Regarding APPAs suggestion that it may be beneficial to include communication protocols in the relevant Reliability Standard that governs those types of emergencies, we direct that it be addressed in the Reliability Standards Development pr

Para 533

"Regarding APPAs suggestion that it may be beneficial to include communication protocols in the relevant Reliability Standard that governs those types of emergencies, we direct that it be addressed in the Reliability Standards Development process."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

The OPCPSDT is addressing protocols for normal, alert, and emergency conditions.

Status: In Drafting Delivery: 2013

Solution Details:

The OPCPSDT is addressing protocols for normal, alert, and emergency conditions.

DIRECTIVE: S- Ref 10057 - Address Santa Clara, FirstEnergy, and Six Cities concerns in the reliability standards development process.

Para 539

"Address Santa Clara, FirstEnergy, and Six Cities concerns in the reliability standards development process."

Not assigned to any project.

DIRECTIVE: S- Ref 10059 - Include reliability coordinators as an applicable entity.

Para 547

"Include reliability coordinators as an applicable entity."

Assigned: Project 2009-03 - Emergency Operations

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10060 - Consider Southern California Edisons suggestions in the standard development process.

Para 548

"Consider Southern California Edisons and Xcels suggestions in the standard development process."

Assigned: Project 2009-03 - Emergency Operations

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10062 - Clarify that the 30-minute requirement in requirement R2 to state that load shedding should be capable of being implemented as soon as possible but no more than 30 minutes.

Para 555

"Clarify that the 30-minute requirement in requirement R2 to state that load shedding should be capable of being implemented as soon as possible but no more than 30 minutes."

Assigned: Project 2009-03 - Emergency Operations

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10063 - We direct the ERO to determine the optimum number of continent-wide system states and their attributes and to modify the Reliability Standards through the Reliability Standards development process to accomplish this objective.

Para 561

"We direct the ERO to determine the optimum number of continent-wide system states and their attributes and to modify the Reliability Standards through the Reliability Standards development process to accomplish this objective."

Assigned: Project 2009-03 - Emergency Operations

Future project

Status: In Drafting Delivery: 2013

Solution Details:

Future project

DIRECTIVE: S- Ref 10064 - Consider a pilot program (field test) for the system states proposal.

Para 562

"Consider a pilot program (field test) for the system states proposal."

Assigned: Project 2009-03 - Emergency Operations

Future project

Status: In Drafting Delivery: 2013

Solution Details:

Future project

DIRECTIVE: S- Ref 10065 - Clarifies that the actual emergency plan elements, and not the for consideration elements of Attachment 1, should be the basis for compliance.

Para 565

"Clarifies that the actual emergency plan elements, and not the for consideration elements of Attachment 1, should be the basis for compliance."

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10066 - Address emergencies resulting not only from insufficient generation but also insufficient transmission capability, particularly as it affects the implement of the capacity and energy emergency plan.

Para 571

"Address emergencies resulting not only from insufficient generation but also insufficient transmission capability, particularly as it affects the implement of the capacity and energy emergency plan."

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10067 - Include all technically feasible resource options, including demand response and generation resources

Para 573

"Include all technically feasible resource options, including demand response and generation resources"

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10068 - Ensure the TLR procedure is not used to mitigate actual IROL violations.

Para 577

"Ensure the TLR procedure is not used to mitigate actual IROL violations."

Assigned: Project 2010-12 - Order 693 Directives

Already addressed as part of other project.

Status: Filed Delivery: 2010

Solution Details:

Already addressed as part of other project.

DIRECTIVE: S- Ref 10070 - The Commission directs that the ERO to consider adding Measures and Levels of Non-compliance in the Reliability Standard.

Para 582

"The Commission directs that the ERO to consider adding Measures and Levels of Non-compliance in the Reliability Standard."

Assigned: Project 2010-12 - Order 693 Directives

Modified as suggested.

Status: Filed Delivery: 2010

Solution Details:

Modified as suggested.

DIRECTIVE: S- Ref 10069 - The issues raised by ISO-NE should be addressed through the Reliability Standards development process.

Para 582

"The issues raised by ISO-NE should be addressed through the Reliability Standards development process."

Assigned: Project 2010-12 - Order 693 Directives

DIRECTIVE: S- Ref 10072 - Develop specific minimum load shedding capability that should be provided .. based on overarching nationwide criteria that take into account system characteristics.

Para 595

"Develop specific minimum load shedding capability that should be provided .. based on overarching nationwide criteria that take into account system characteristics."

Assigned: Project 2009-03 - Emergency Operations

DIRECTIVE: S- Ref 10073 - Require periodic drills of simulated load shedding.

Para 597

"Require periodic drills of simulated load shedding."

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10074 - Consider comments from APPA in the standards development process.

Para 601

"Para 601

We also note that APPA and ISO-NE raise issues regarding coordination of trip settings and automatic and manual load shedding plans. The Commission directs the ERO to consider these comments in future modification to the Reliability Standard through the Reliability Standards development process.

Para 598

Santa Clara states that since automatic load shedding for undervoltage conditions is not required in most parts of the West and possibly in other areas of the country, Requirement R2 should be modified to include the words as applicable per the Regional Reliability Organization. In addition, APPA states that NERC should consider requiring balancing authorities and transmission operators to expand coordination and planning of their automatic and manual load shedding plans to include their respective Regional Entities, reliability coordinators and generation owners. ISO-NE proposes that NERC establish coordinated trip settings within and among balancing authorities for each interconnection.

"

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10076 - Consider APPAs concern about generator operators and LSEs analyzing performance of their equipment and provide data and information on the equipment to assist others with analysis. Paragraph 607. APPA is concerned about the scope of Requir

Para 612

"Consider APPAs concern about generator operators and LSEs analyzing performance of their equipment and provide data and information on the equipment to assist others with analysis. Paragraph 607. APPA is concerned about the scope of Requirement R2 because, in its opinion, Requirement R2 appears to impose an open-ended obligation on entities such as generation operators and LSEs that may have neither the data nor the tools to promptly analyze disturbances that could have originated elsewhere. APPA proposes that Requirement R2 be modified to require affected entities to promptly begin analyses to ensure timely reporting to NERC and DOE."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

EOP-004-2 no longer contains provisions for entities to analyze events.

Status: In Drafting Delivery: 2012

Solution Details:

EOP-004-2 no longer contains provisions for entities to analyze events. The DSR SDT envisions EOP-004-2 to be a continent-wide reporting standard. Any follow up investigation or analysis falls under the purview of the NERC Events Analysis Program under the NERC Rules of Procedure.

DIRECTIVE: S- Ref 10077 - The Commission directs the ERO to consider all comments (Xcel) in future modifications of the Reliability Standard through the Reliability Standards development process.

Para 615

"The Commission directs the ERO to consider all comments (Xcel) in future modifications of the Reliability Standard through the Reliability Standards development process."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

This issue is: 615. The Commission declines to address Xcel's concerns about the current WECC process.

Status: In Drafting Delivery: 2012

Solution Details:

This issue is: 615. The Commission declines to address Xcel's concerns about the current WECC process. These issues should be addressed in the Reliability Standards development process or submitted as a regional difference. The

Commission directs the ERO to consider all comments in future modifications of the Reliability Standard through the Reliability Standards development process. The DSR SDT has considered and responded to all comments received on the standard through the standard development process.

DIRECTIVE: S- Ref 10078 - The ERO should consider this issue (APPA) through the Reliability Standards development process

Para 616

"The ERO should consider this issue (APPA) through the Reliability Standards development process"

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

The actual issue is: 616. In response to APPAs concern that...

Status: In Drafting Delivery: 2012

Solution Details:

The actual issue is: 616. In response to APPAs concern that NERC did not provide a Measure for each Requirement, we reiterate that it is in the EROs discretion whether each Requirement requires a corresponding Measure. The ERO should consider this issue through the Reliability Standards development process. There are measures for each requirement

DIRECTIVE: S- Ref 10079 - Para 617 the Commission directs the ERO to develop a modification to EOP-004-1 through the Reliability Standards development process that includes any Requirements necessary for users, owners and operators of the Bulk-Power System to

Para 617

"617.While the Commission has identified concerns with regard to EOP-004-1, we believe that the proposal serves an important purpose in establishing requirements for reporting and analysis of system disturbances. Accordingly, the Commission approves Reliability Standard EOP-004-1 as mandatory and enforceable. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to EOP-004-1 through the Reliability Standards development process that includes any Requirements necessary for users, owners and operators of the Bulk-Power System to provide data that will assist NERC in the investigation of a blackout or disturbance."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

EOP-004-2 is the standard for reporting events.

Status: In Drafting Delivery: 2012

Solution Details:

EOP-004-2 is the standard for reporting events. This provides input to the Events Analysis Program at NERC. Follow up and lessons learned are a part of the EAP.

DIRECTIVE: S- Ref 10075 - Paragraph 618. requirement R3 addresses the reporting of disturbances to the regional reliability organizations and NERC. The Commission directs the ERO to change its Rules of Procedure to assure that the Commission also receives these repo

Para 618

"Paragraph 618. requirement R3 addresses the reporting of disturbances to the regional reliability organizations and NERC. The Commission directs the ERO to change its Rules of Procedure to assure that the Commission also receives these reports within the same time frames as DOE."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

DIRECTIVE: S- Ref 10082 - Consider commenters concerns in future modifications of the reliability standard, including those that refer to Attachment 1.

Para 628

"Consider commenters concerns in future modifications of the reliability standard, including those that refer to Attachment 1."

Assigned: Project 2006-03 - System Restoration and Blackstart

The attachment has been removed and all applicable requirements moved into the body of the standard as specific requirements or sub-requirements. No specific language spread throughout the standards and requirements.

Status: Regulator Approved Delivery: 2009

Solution Details:

The attachment has been removed and all applicable requirements moved into the body of the standard as specific requirements or sub-requirements. No specific language spread throughout the standards and requirements.

DIRECTIVE: S- Ref 10083 - Directs the ERO to consider the issues raised by NRC in future revisions of the Reliability Standard through the Reliability Standard development process.

Para 629

"Directs the ERO to consider the issues raised by NRC in future revisions of the Reliability Standard through the Reliability Standard development process."

Assigned: Project 2006-03 - System Restoration and Blackstart

Resolved

Status: Regulator Approved Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10081 - NERC shall gather data from simulations and drills of system restoration on the time it takes to restore power to the auxiliary power systems of nuclear power plants under its data gathering authority and report the information to the Commi

Para 629

"NERC shall gather data from simulations and drills of system restoration on the time it takes to restore power to the auxiliary power systems of nuclear power plants under its data gathering authority and report the information to the Commission on a quarterly basis."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Quarterly Nuclear Report

Status: Filed Delivery: 2009

Solution Details:

Onaging obligation... Steve C has been doing, is now transitioning to Wendy.

DIRECTIVE: S- Ref 10080 - Identify time frames for training and review of restoration plan requirements to simulate contingencies and prepare operators for anticipated and unforeseen events.

Para 630

"Identify time frames for training and review of restoration plan requirements to simulate contingencies and prepare operators for anticipated and unforeseen events."

Assigned: Project 2006-03 - System Restoration and Blackstart

Training addressed in EOP-005-2, R10, R11, R12, R17, and R18 as well as EOP-0006-2, R9 and R10. EOP-005-2: R10. Each Transmission Operator shall include within its operations training program, annual System restoration training for its System Operators t

Status: Regulator Approved Delivery: 2009

Solution Details:

Training addressed in EOP-005-2, R10, R11, R12, R17, and R18 as well as EOP-0006-2, R9 and R10. EOP-005-2:

R10. Each Transmission Operator shall include within its operations training program, annual System restoration training for its System Operators to assure the proper execution of its restoration plan. This training program shall include training on the following:

R10.1. System restoration plan including coordination with the Reliability Coordinator and Generator Operators included in the restoration plan.

R10.2. Restoration priorities.

R10.3. Building of cranking paths.

R10.4. Synchronizing (re-energized sections of the System).

R11. Each Transmission Operator, each applicable Transmission Owner, and each applicable Distribution Provider shall provide a minimum of two hours of System restoration training every two calendar years to their field switching personnel identified as performing unique tasks associated with the Transmission Operators restoration plan that are outside of their normal tasks.

R12. Each Transmission Operator shall participate in its Reliability Coordinators restoration drills, exercises, or simulations as requested by its Reliability Coordinator.

R17. Each Generator Operator with a Blackstart Resource shall provide a minimum of two hours of training every two calendar years to each of its operating personnel responsible for the startup of its Blackstart Resource generation units and energizing a bus. The training program shall include training on the following:

R17.1. System restoration plan including coordination with the Transmission Operator.

R17.2. The procedures documented in Requirement R14.

R18. Each Generator Operator shall participate in the Reliability Coordinators restoration drills, exercises, or simulations as requested by the Reliability Coordinator.

EOP-006-2:

R9. Each Reliability Coordinator shall include within its operations training program, annual System restoration training for its System Operators to assure the proper execution of its restoration plan. This training program shall address the following:

R9.1. The coordination role of the Reliability Coordinator.

R9.2. Reestablishing the Interconnection.

R10. Each Reliability Coordinator shall conduct two System restoration drills, exercises, or simulations per calendar year, which shall include the Transmission Operators and Generator Operators as dictated by the particular scope of the drill, exercise, or simulation that is being conducted.

R10.1. Each Reliability Coordinator shall request each Transmission Operator identified in its restoration plan and each Generator Operator identified in the Transmission Operators restoration plans to participate in a drill, exercise, or simulation at least every two calendar years.

DIRECTIVE: S- Ref 10084 - Ensure the reliability coordinator is involved in the development and approval of system restoration plans.

Para 638

"Para 638

The Commission finds that the Reliability Standard adequately addresses the goals of effective and efficient reliability coordination and system restoration. Accordingly, the Commission approves Reliability Standard EOP-006-1 as mandatory and enforceable. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to EOP-006-1 through the Reliability Standards development process that ensures that the reliability coordinator, which is the highest level of authority responsible for reliability of the Bulk-Power System, is involved in the development and approval of system restoration plans.

"

Assigned: Project 2006-03 - System Restoration and Blackstart

EOP-006-2, R4 & R5 R4. Each Reliability Coordinator shall review their neighboring Reliability Coordinators restoration plans. R4.1. If the Reliability Coordinator finds conflicts between its restoration plans and any of its neighbors, the conflicts shall

Status: Regulator Approved Delivery: 2009

Solution Details:

EOP-006-2, R4 & R5 R4. Each Reliability Coordinator shall review their neighboring Reliability Coordinators restoration plans.

R4.1. If the Reliability Coordinator finds conflicts between its restoration plans and any of its neighbors, the conflicts shall be resolved in 30 calendar days.

R5. Each Reliability Coordinator shall review the restoration plans required by EOP-005 of the Transmission Operators within its Reliability Coordinator Area.

R5.1. The Reliability Coordinator shall determine whether the Transmission Operators restoration plan is coordinated and compatible with the Reliability Coordinators restoration plan and other Transmission Operators restoration plans within its Reliability Coordinator Area. The Reliability Coordinator shall approve or disapprove, with stated reasons, the Transmission Operators submitted restoration plan within 30 calendar days following the receipt of the restoration plan from the Transmission Operator.

DIRECTIVE: S- Ref 10086 - With regard to TANCs request for regional flexibility in determining the appropriate mix of facilities needed to achieve the reliability objectives, it is our understanding that the Reliability Standard provides for the number and location

Para 646

"With regard to TANCs request for regional flexibility in determining the appropriate mix of facilities needed to achieve the reliability objectives, it is our understanding that the Reliability Standard provides for the number and location of blackstart units to vary depending on the specific requirements of each system. We believe that uniformity will be required, however, in the criteria used to determine the number and location of blackstart units and testing requirements"

Assigned: Project 2006-03 - System Restoration and Blackstart

Resolved

Status: Regulator Approved Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10085 - Para's 642 & 643 - EEI suggests that EOP-007-0 be rewritten so that compliance obligations are assigned directly to those entities that provide the data and other information. FirstEnergy and MRO state that the reliability coordinator, not

Para 647

"642 & 643 - EEI suggests that EOP-007-0 be rewritten so that compliance obligations are assigned directly to those entities that provide the data and other information. FirstEnergy and MRO state that the reliability coordinator, not the Regional Entity, should be responsible for the regional blackstart plan for its area of responsibility."

Assigned: Project 2006-03 - System Restoration and Blackstart

Pertinent requirements have been re-assigned to the RC within EOP-006. EOP-007 has been retired. No specific language, just EOP-006-2 as a whole

Status: Regulator Approved Delivery: 2009

Solution Details:

Pertinent requirements have been re-assigned to the RC within EOP-006. EOP-007 has been retired.

DIRECTIVE: S- Ref 10088 - Para 651 - Provide for backup capabilities that, at a minimum, must be capable of operating for a prolonged period of time, generally defined by the time it takes to restore the primary control center.

Para 663

"651 - Provide for backup capabilities that, at a minimum, must be capable of operating for a prolonged period of time, generally defined by the time it takes to restore the primary control center."

Assigned: Project 2006-04 - Backup Facilities

EOP-008-1, Requirement R1, part 1.1

Status: Regulator Approved Delivery: 2011

Solution Details:

EOP-008-1, Requirement R1, part 1.1

DIRECTIVE: S- Ref 10090 - Para 651 - Provide for backup capabilities that, at a minimum, must provide for a minimum functionality to replicate the critical reliability functions of the primary control center.

Para 663

"651 - Provide for backup capabilities that, at a minimum, must provide for a minimum functionality to replicate the critical reliability functions of the primary control center."

Assigned: Project 2006-04 - Backup Facilities

EOP-008-1, Requirement R3 for Reliability Coordinator EOP-008-1, Requirement R4 for Transmission Operator & Balancing Authority

Status: Regulator Approved Delivery: 2011

Solution Details:

EOP-008-1, Requirement R3 for Reliability Coordinator

EOP-008-1, Requirement R4 for Transmission Operator & Balancing Authority

DIRECTIVE: S- Ref 10092 - Provide for backup capabilities that, at a minimum, must require transmission operators and balancing authorities that have operational control over significant portions of generation and load to have minimum backup capabilities

Para 663

"672 - Provide for backup capabilities that, at a minimum, must require transmission operators and balancing authorities that have operational control over significant portions of generation and load to have minimum backup capabilities discussed above but may do so through contracting for these services instead of through dedicated backup control centers."

Assigned: Project 2006-04 - Backup Facilities

EOP-008-1, Requirement R4 for Transmission Operator & Balancing Authority

Status: Regulator Approved Delivery: 2011

Solution Details:

EOP-008-1, Requirement R4 for Transmission Operator & Balancing Authority

DIRECTIVE: S- Ref 10093 - Provide for backup capabilities that, at a minimum, must be independent of the primary control center

Para 663

"Provide for backup capabilities that, at a minimum, must be independent of the primary control center"

Assigned: Project 2006-04 - Backup Facilities

EOP-008-1, Requirement R6

Status: Regulator Approved Delivery: 2011

Solution Details:

EOP-008-1, Requirement R6

DIRECTIVE: S- Ref 10089 - Para 672 - Provide for backup capabilities that, at a minimum, must include a requirement that all reliability coordinators have full backup control centers;

Para 670

"672 - Provide for backup capabilities that, at a minimum, must include a requirement that all reliability coordinators have full backup control centers;"

Assigned: Project 2006-04 - Backup Facilities

EOP-008-1, Requirement R3 for Reliability Coordinator

Status: Regulator Approved Delivery: 2011

Solution Details:

EOP-008-1, Requirement R3 for Reliability Coordinator

DIRECTIVE: S- Ref 10087 - Include large, centrally dispatched generation control centers.

Para 670

"Include large, centrally dispatched generation control centers."

Assigned: Project 2006-04 - Backup Facilities

Delegation agreements between Balancing Authorities and Generator Operators, which are enforced by compliance auditors, cover this item. No action taken.

Status: Regulator Approved Delivery: 2011

Solution Details:

Delegation agreements between Balancing Authorities and Generator Operators, which are enforced by compliance auditors, cover this item.

DIRECTIVE: S- Ref 10091 - Provide for backup capabilities that, at a minimum, must provide that the extent of the backup capability be consistent with the impact of the loss of the entity's primary control center on the reliability of the bulk power system.

Para 672

"Provide for backup capabilities that, at a minimum, must provide that the extent of the backup capability be consistent with the impact of the loss of the entity's primary control center on the reliability of the bulk power system."

Assigned: Project 2006-04 - Backup Facilities

EOP-008-1, Requirement R3 for Reliability Coordinator EOP-008-1, Requirement R4 for Transmission Operator & Balancing Authority

Status: Regulator Approved Delivery: 2011

Solution Details:

EOP-008-1, Requirement R3 for Reliability Coordinator

EOP-008-1, Requirement R4 for Transmission Operator & Balancing Authority

DIRECTIVE: S- Ref 10094 - Consider suggestions for improvements in future revisions of the standards.

Para 676

"Consider suggestions for improvements in future revisions of the standards."

Assigned: Project 2006-03 - System Restoration and Blackstart

Resolved

Status: Regulator Approved Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10097 - Address other commenters concerns in future revisions to the standard.

Para 687

"All of the above commenters request clarification of Requirement R1 in the Reliability Standard that states that various functional entities shall each coordinate and cooperate on its assessments with its transmission planner and planning authority. The Commission believes that all entities listed in the Applicability section have a stake in the performance of the system and should have the opportunity to provide input in the assessment under R1. The Commission believes that commenters have raised valid concerns that, if addressed, would make the Reliability Standard better. The wording would allow a number of organizational approaches to achieving the goal of performing an analysis. The Commission does not intend to limit which organizational approach is used by the entities, only to assure that a single competent and collaborative analysis is performed. Therefore, the Commission directs the ERO to address these concerns in the Reliability Standards development process.

"

Assigned: Project 2010-02 - Connecting New Facilities to the Grid

DIRECTIVE: S- Ref 10095 - Consider FirstEnergys suggestion to include a reference to TPL-004-0.

Para 692

"The Commission notes that APPA and EEI agree with the Commissions proposed directive to NERC to modify FAC-002-0 to require evaluation of system performance under both normal and contingency conditions by referencing TPL-001-0 through TPL-003-0. The Commission also notes that NERC, in response to the Staff Preliminary Assessment, has also agreed with the same proposal. These three TPL Reliability Standards cover normal operation, first contingency operation and multiple contingency operations respectively. The Commission disagrees with Entergy that TPL-001-0 and TPL-002-0 are sufficient because it is important to plan for new facilities taking into account not only normal circumstances but also contingencies. In addition, we note that including TPL-001-0 through TPL-003-0 will result in the FAC-002 Reliability Standard being consistent with Order No. 2003, which requires interconnecting entities to take into account multiple contingencies in interconnection studies. With respect to FirstEnergys suggestion to also include a reference to Reliability Standard TPL-004-0, we direct the ERO to consider it through the Reliability Standards development process."

Assigned: Project 2010-02 - Connecting New Facilities to the Grid

DIRECTIVE: S- Ref 10096 - Amend requirement R1.4 to require evaluation of system performance under both normal and contingency conditions by referencing TPL-001 through TPL-003.

Para 693

"Amend requirement R1.4 to require evaluation of system performance under both normal and contingency conditions by referencing TPL-001 through TPL-003."

Assigned: Project 2010-12 - Order 693 Directives

Modified as suggested.

Status: Filed Delivery: 2010

Solution Details:

Modified as suggested.

DIRECTIVE: S- Ref 10099 - Incorporate suggestions to include facilities at lower voltages that are associated with IROLs.

Para 706

"Incorporate suggestions to include facilities at lower voltages that are associated with IROLs."

Assigned: Project 2007-07 - Vegetation Management

The VM SDT proposed to apply FAC-003 Standard to all lines above 200kV and lines identified as IROL elements or Major WECC Transfer Paths. Apply standard to lines identified as IROL elements or Major WECC Transfer Paths. Current drafting team to complete

Status: In Drafting Delivery: 2011

Solution Details:

The VM SDT proposed to apply FAC-003 Standard to all lines above 200kV and lines identified as IROL elements or Major WECC Transfer Paths. Apply standard to lines identified as IROL elements or Major WECC Transfer Paths. Current drafting team to complete

DIRECTIVE: S- Ref 10098 - Address the issue of bright-line applicability of 200 kV and above through the standards development process.

Para 706

"Address the issue of bright-line applicability of 200 kV and above through the standards development process."

Assigned: Project 2007-07 - Vegetation Management

The VM SDT proposed to apply FAC-003 Standard to all lines above 200kV and lines identified as IROL elements or Major WECC Transfer Paths. Apply standard to lines identified as IROL elements or Major WECC Transfer Paths. Current drafting team to complete

Status: In Drafting Delivery: 2011

Solution Details:

The VM SDT proposed to apply FAC-003 Standard to all lines above 200kV and lines identified as IROL elements or Major WECC Transfer Paths. Apply standard to lines identified as IROL elements or Major WECC Transfer Paths. Current drafting team to complete

DIRECTIVE: S- Ref 10102 - We recognize that many commenter's would like a more precise definition for the applicability of this Reliability Standard, and we direct the ERO to develop an acceptable definition that covers facilities that impact reliability but balance

Para 708

"We recognize that many commenter's would like a more precise definition for the applicability of this Reliability Standard, and we direct the ERO to develop an acceptable definition that covers facilities that impact reliability but balances extending the applicability of this standard against unreasonably increasing the burden on transmission owners"

Assigned: Project 2007-07 - Vegetation Management

The VM SDT proposed to apply FAC-003 Standard to all lines above 200kV and lines identified as IROL elements or Major WECC Transfer Paths. Apply standard to lines identified as IROL elements or Major WECC Transfer Paths. Current drafting team to complete

Status: In Drafting Delivery: 2011

Solution Details:

The VM SDT proposed to apply FAC-003 Standard to all lines above 200kV and lines identified as IROL elements or Major WECC Transfer Paths. Apply standard to lines identified as IROL elements or Major WECC Transfer Paths. Current drafting team to complete

DIRECTIVE: S- Ref 10103 - FirstEnergy and Xcel suggest that if the applicability of this Reliability Standard is expanded, the Commission should allow flexibility in complying with this Reliability Standard for lower-voltage facilities, or allow lower-voltage facili

Para 709

"FirstEnergy and Xcel suggest that if the applicability of this Reliability Standard is expanded, the Commission should allow flexibility in complying with this Reliability Standard for lower-voltage facilities, or allow lower-voltage facilities one year before the Reliability Standard is implemented. The ERO should consider these comments when determining when it would request that the modification of this Reliability Standard to go into effect.."

Assigned: Project 2007-07 - Vegetation Management

The VM SDT developed language in the Applicability section of new proposed revision to FAC-003-1. Current drafting team to complete

Status: Filed Delivery: 2011

Solution Details:

The VM SDT developed language in the Applicability section of new proposed revision to FAC-003-1. Current drafting team to complete

DIRECTIVE: S- Ref 10104 - Accordingly, the Commission directs the ERO to develop compliance audit procedures, using relevant industry experts, which would identify appropriate inspection cycles based on local factors. These inspection cycles are to be used in compl

Para 721

"Accordingly, the Commission directs the ERO to develop compliance audit procedures, using relevant industry experts, which would identify appropriate inspection cycles based on local factors. These inspection cycles are to be used in compliance auditing of FAC-003-1 by the ERO or Regional Entity to ensure such inspection cycles and vegetation management requirements are properly met by the responsible entities."

Assigned: Project 2007-07 - Vegetation Management

The VM SDT has tightened the Inspection Cycle requirement of FAC-003-2. Minimum inspection frequency of once per calendar year is now required. Current drafting team to complete

Status: In Drafting Delivery: 2011

Solution Details:

The VM SDT has tightened the Inspection Cycle requirement of FAC-003-2. Minimum inspection frequency of once per calendar year is now required. Current drafting team to complete

DIRECTIVE: S- Ref 10101 - Collect outage data for transmission outages of lines that cross both federal and non-federal lands, analyze it, and use the results to develop a standard that would apply to both federal and non-federal lands.

Para 732

"Collect outage data for transmission outages of lines that cross both federal and non-federal lands, analyze it, and use the results to develop a standard that would apply to both federal and non-federal lands."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10100 - Define the minimum clearance needed to avoid sustained vegetation-related outages that apply to line crossing federal and non-federal lands.

Para 732

"Define the minimum clearance needed to avoid sustained vegetation-related outages that apply to line crossing federal and non-federal lands."

Assigned: Project 2007-07 - Vegetation Management

The VM SDT developed requirement to prevent encroachment of vegetation within a Minimum Vegetation Clearance Distance in the new proposed revision to FAC-003-1. The SDT also revised the Applicability section to explicitly include Federal lands. Gallet equ

Status: In Drafting Delivery: 2011

Solution Details:

The VM SDT developed requirement to prevent encroachment of vegetation within a Minimum Vegetation Clearance Distance in the new proposed revision to FAC-003-1. The SDT also revised the Applicability section to explicitly include Federal lands. Gallet equations Current drafting team to complete

DIRECTIVE: S- Ref 10105 - FirstEnergy suggests that rights-of-way be defined to encompass the required clearance areas instead of the corresponding legal rights, and that the standards should not require clearing the entire right-of-way when the required clearance f

Para 734

"FirstEnergy suggests that rights-of-way be defined to encompass the required clearance areas instead of the corresponding legal rights, and that the standards should not require clearing the entire right-of-way when the required clearance for an existing line does not take up the entire right-of-way. The Commission believes this suggestion is reasonable and should be addressed by the ERO. Accordingly, the Commission directs the ERO to address this suggestion in the Reliability Standards development process."

Assigned: Project 2007-07 - Vegetation Management

The VM SDT developed a new definition of Active Transmission Line ROW for inclusion in NERC Glossary. Current drafting team to complete

Status: Filed Delivery: 2011

Solution Details:

The VM SDT developed a new definition of Active Transmission Line ROW for inclusion in NERC Glossary. Current drafting team to complete

DIRECTIVE: S- Ref 10106 - Consider EEs suggestion for having this information available for review upon request of a registered user, owner, and operator as part of the standards development process.

Para 739

"Consider EEs suggestion for having this information available for review upon request of a registered user, owner, and operator as part of the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed

Status: Filed Delivery: 2011

Solution Details:

Filed

DIRECTIVE: S- Ref 10107 - Require transmission and generator facility owners to document underlying assumptions and methods used to determine normal and emergency facility ratings.

Para 739

"Require transmission and generator facility owners to document underlying assumptions and methods used to determine normal and emergency facility ratings."

Assigned: Project 2006-09 - Facility Ratings

Filed

Status: Filed Delivery: 2011

Solution Details:

Filed

DIRECTIVE: S- Ref 10108 - Ensure that the methodology chosen is consistent with standards developed in an open process like IEEE or CIGRE.

Para 742

"Ensure that the methodology chosen is consistent with standards developed in an open process like IEEE or CIGRE."

Assigned: Project 2006-09 - Facility Ratings

Filed

Status: Filed Delivery: 2011

Solution Details:

Filed

DIRECTIVE: S- Ref 10109 - Identify and document the limiting component for all facilities and the increase in rating if that component were no longer the limiting component, i.e. the rating for the second-most limiting component, for facilities associated with an IR

Para 756

"Identify and document the limiting component for all facilities and the increase in rating if that component were no longer the limiting component, i.e. the rating for the second-most limiting component, for facilities associated with an IROL, a limitation of TTC, an impediment to generator deliverability, or an impediment to service in major cities or load pockets."

Assigned: Project 2006-09 - Facility Ratings

Future phase

Status: Filed Delivery: 2011

Solution Details:

Future phase

DIRECTIVE: S- Ref 10110 - Consider International Transmissions comments regarding applying this directive only for lines where the conductor itself is not the limiting element as part of the standards development process.

Para 760

"Consider International Transmissions comments regarding applying this directive only for lines where the conductor itself is not the limiting element as part of the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed

Status: Filed Delivery: 2011

Solution Details:

Filed

DIRECTIVE: S- Ref 10111 - Consider comments from FirstEnergy and MISO that generators will have difficulty determining the increase in ratings due to the next limiting element through the standards development process.

Para 760

"Consider comments from FirstEnergy and MISO that generators will have difficulty determining the increase in ratings due to the next limiting element through the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed

Status: Filed Delivery: 2011
Solution Details:
Filed

DIRECTIVE: S- Ref 10112 - Consider Xcels comments that an actual test be used by generator operators to determine capabilities as part of the standards development process.

Para 765

"Consider Xcels comments that an actual test be used by generator operators to determine capabilities as part of the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed
Status: Filed Delivery: 2011
Solution Details:
Filed

DIRECTIVE: S- Ref 10113 - Consider FirstEnergys comments that compliance with NRC rating methodologies should be assumed to comply with NERC reliability standards as part of the standards development process.

Para 765

"Consider FirstEnergys comments that compliance with NRC rating methodologies should be assumed to comply with NERC reliability standards as part of the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed
Status: Filed Delivery: 2011
Solution Details:
Filed

DIRECTIVE: S- Ref 10114 - Consider the comments by the Valley Group regarding dynamic line ratings as part of the standards development process.

Para 768

"Consider the comments by the Valley Group regarding dynamic line ratings as part of the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed
Status: Filed Delivery: 2011
Solution Details:
Filed

DIRECTIVE: S- Ref 10115 - Add or update the compliance measures in the standard as part of the standards development process.

Para 770

"Add or update the compliance measures in the standard as part of the standards development process."

Assigned: Project 2006-09 - Facility Ratings

Filed
Status: Filed Delivery: 2011
Solution Details:
Filed

DIRECTIVE: S- Ref 10116 - Should provide a framework for transfer capability calculation methodology, including data inputs and modeling assumptions.

Para 779

"Should provide a framework for transfer capability calculation methodology, including data inputs and modeling assumptions."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

ATC MOD standards do so, not FACs.
Status: Filed Delivery: 2008
Solution Details:
ATC MOD standards do so, not FACs.

DIRECTIVE: S- Ref 10117 - Should be an umbrella organization within the Eastern Interconnection and others to assure consistency. This is best done by NERC as the ERO.

Para 779

"Should be an umbrella organization within the Eastern Interconnection and others to assure consistency. This is best done by NERC as the ERO."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

ATC MOD standards do so, not FACs.
Status: Filed Delivery: 2008
Solution Details:
ATC MOD standards do so, not FACs.

DIRECTIVE: S- Ref 10118 - Process used to determine transfer capabilities should be transparent to the stakeholders. The results of those calculations should be available to qualified entities on a confidential basis.

Para 782

"Process used to determine transfer capabilities should be transparent to the stakeholders. The results of those calculations should be available to qualified entities on a confidential basis."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

ATC MOD standards do so, not FACs.
Status: Filed Delivery: 2008
Solution Details:
ATC MOD standards do so, not FACs.

DIRECTIVE: S- Ref 10119 - The process and criteria used to determine transfer capabilities for use in calculating ATC must be identical to those used in planning and operating the system.

Para 782

"The process and criteria used to determine transfer capabilities for use in calculating ATC must be identical to those used in planning and operating the system."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

ATC MOD standards do so, not FACs.
Status: Filed Delivery: 2008
Solution Details:
ATC MOD standards do so, not FACs.

DIRECTIVE: S- Ref 10124 - Make the standard applicable to reliability coordinators.

Para 790

"Make the standard applicable to reliability coordinators."

Assigned: Project 2006-07 - ATC-TTC-CBM-TRM

SDT could not identify tasks for RC.
Status: Filed Delivery: 2008
Solution Details:
SDT could not identify tasks for RC.

DIRECTIVE: S- Ref 10132 - Include a requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area, including all grandfathered and non-Order No. 888 transfers.

Para 817

"Include a requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area, including all grandfathered and non-Order No. 888 transfers."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Being addressed in INT-012 Current drafting team to complete
Status: In Drafting Delivery: 2014
Solution Details:
Being addressed in INT-012 Current drafting team to complete

DIRECTIVE: S- Ref 10133 - Consider Santa Claras comments about the applicability of the LSE in the standard as part of the standards development process. Santa Clara submits that LSEs should be applicable entities under proposed revised INT-001-2 to ensure that the

Para 819

"Consider Santa Claras comments about the applicability of the LSE in the standard as part of the standards development process. Santa Clara submits that LSEs should be applicable entities under proposed revised INT-001-2 to ensure that they have adequate notice of the requirements of this Reliability Standard. It states that the actions of LSEs are implicated in Requirement R1 of this proposed Reliability Standard."

Assigned: Project 2008-12 - Coordinate Interchange Standards

The SDT has considered these comments. By tightening the language in INT-009 regarding implementation of interchange, the SDT believes that an LSE will have an incentive to provide the information required in the standard, making it effectively a self-po

Status: In Drafting Delivery: 2014

Solution Details:

The SDT has considered these comments. By tightening the language in INT-009 regarding implementation of interchange, the SDT believes that an LSE will have an incentive to provide the information required in the standard, making it effectively a self-policing standard. Current drafting team to complete

DIRECTIVE: S- Ref 10131 - Regional Difference to INT-001/4: WECC Tagging Dynamic Schedules and Inadvertent Payback: Submit a filing within 90 days of the Order that provides the needed information or withdraws the regional variance.

Para 825

"Regional Difference to INT-001/4: WECC Tagging Dynamic Schedules and Inadvertent Payback: Submit a filing within 90 days of the Order that provides the needed information or withdraws the regional variance."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Waivers withdrawn/removed

Status: Filed Delivery: 2007

Solution Details:

Waivers withdrawn/removed. New standards are INT-001-3; INT-004-2.

DIRECTIVE: S- Ref 10134 - Consider adding levels of non-compliance to the standard.

Para 843

"Consider adding levels of non-compliance to the standard."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Compliance elements have been added. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Compliance elements have been added. Current drafting team to complete

DIRECTIVE: S- Ref 10135 - Consider adding levels of non-compliance to the standard.

Para 848

"Consider adding levels of non-compliance to the standard."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Standard to be retired. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Standard to be retired. Current drafting team to complete

DIRECTIVE: S- Ref 10137 - Require reliability coordinators and transmission operators to review energy interchange transactions from the wide-area and local area reliability viewpoints respectively and, where their review indicates a potential detrimental reliability

Para 866

"Require reliability coordinators and transmission operators to review energy interchange transactions from the wide-area and local area reliability viewpoints respectively and, where their review indicates a potential detrimental reliability impact, communicate to the sink balancing authorities necessary transaction modifications before implementation."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

DIRECTIVE: S- Ref 10138 - Consider the suggestions made by EEI and TVA and address questions raised by Entergy and Northern Indiana as part of the standard development process. EEI states that the wide-area reliability impact review envisioned by the Commission, w

Para 866

"Consider the suggestions made by EEI and TVA and address questions raised by Entergy and Northern Indiana as part of the standard development process.

EEI states that the wide-area reliability impact review envisioned by the Commission, which involves review of the composite energy interchange transactions, probably already takes place under Reliability Standards INT-005 through INT-009 in a cost-effective manner. EEI explains that since most transactions submitted by wholesale

markets to the transactions tagging process span multiple hours with varying sizes (in MW), and are often submitted days before transaction start times, the wide-area review consists of ensuring that sufficient generator ramping capability exists, as well as examining for limits on transfer capabilities. This review is generally considered sufficient to the extent that analyses are taking place on the basis of projected system conditions. EEI suggests that the Commission-proposed review and validation of composite energy interchange transactions by reliability coordinators might be more effectively addressed through near real-time system review. It explains that, at this time, the broad range of system condition parameters is better known, and the reliability coordinators can make use of the TLR process to maintain system reliability.

TVA suggests that the term composite Tag should be defined as part of the proposed modifications. CAISO also questions the meaning of composite Tag and

seeks clarification on that issue. TVA notes that depending on the type of reliability analysis required to validate a composite Tag, it may prove impractical to conduct this evaluation for hourly transactions.

Entergy disagrees with the Commissions proposed modifications. It contends that they will require substantial changes to the tagging specifications. Entergy believes that the Commissions concerns may already be addressed by Reliability Standards INT- 005 through INT-009.

Northern Indiana contends that the NOPRs discussion of INT-006-1 is unclear and confusing. It states that it does not understand what the Commission means by validate when the Commission proposes that reliability coordinators and transmission operators review and

validate composite arranged interchanges. Northern Indiana also questions whether both reliability coordinators and transmission operators would be required to validate and approve the Tags and what the basis for approval would be. It questions what falls within the term potential detrimental reliability impact, what happens if a Tag is not validated within 20 minutes to the hour, and whether all schedules are canceled outright or passively approved."

Assigned: Project 2008-12 - Coordinate Interchange Standards

EEI - Will be addressed in IRO and TOP standards; SAR being developed. TVA - The team defined the term composite confirmed interchange Entergy - The changes as written by the team will not require significant tagging rewrites, as no new approval process is required.

Status: In Drafting Delivery: 2014

Solution Details:

EEI - Will be addressed in IRO and TOP standards; SAR being developed.

TVA - The team defined the term composite confirmed interchange

Entergy - The changes as written by the team will not require significant tagging rewrites, as no new approval process is being required.

Northern Indiana - Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

DIRECTIVE: S- Ref 10136 - Include reliability coordinators and transmission operators as applicable entities.

Para 866

"Include reliability coordinators and transmission operators as applicable entities."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

DIRECTIVE: S- Ref 10139 - Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process.

Para 872

"Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed. Current drafting team to complete

DIRECTIVE: S- Ref 10140 - Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process.

Para 875

"Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed. Current drafting team to complete

DIRECTIVE: S- Ref 10141 - Consider Northern Indianas and ISO-NEs suggestions in the standards development process.

Para 887

"Para 887

Accordingly, the Commission approves Reliability Standard INT-010-1 as mandatory and enforceable. In addition, we adopt the interpretation set forth in the NOPR that these current or imminent reliability-related reasons do not include actual IROL violations, since they require immediate control actions so that the system can be returned to a secure operating state as soon as possible and no longer than 30 minutes after a reliability-related system interruption a period that is much shorter than the time that is expected to be required for new or modified transactions to be implemented. Finally, we direct the ERO to consider Northern Indiana and ISO-NEs suggestions in the Reliability Standards development process.

Para 879 and 880

Northern Indiana supports the Commissions interpretation of INT-010-1, but it requests that the Reliability Standard be modified to explicitly state that it does not include actual IROL violations.

ISO-NE supports Commission approval of INT-010-1, but does not share the Commissions concerns regarding the initiation or modification of interchange schedules to address SOL or IROL violations. It states that interchange schedules can in certain circumstances provide an additional effective tool to help prevent an SOL and IROL violation. While ISO-NE recognizes that other tools may in certain circumstances be more effective, it states that this neither diminishes the value nor precludes the use of the tools contained in INT-010-1. ISO-NE also notes that section 2.4 of INT-010-1, which describes Level 4 Non-Compliance, should be edited to state that [t]here shall be a level four non-compliance. . . instead of [t]here shall be a level three non-compliance. . . .

"

Assigned: Project 2008-12 - Coordinate Interchange Standards

Language has been modified to make it clear these exemptions are for schedule changes which are then followed up by tagging changes. As such, this is an appropriate tool for IROLs, as it does not require tagging before schedule changes are made. Current

Status: In Drafting Delivery: 2014

Solution Details:

Language has been modified to make it clear these exemptions are for schedule changes which are then followed up by tagging changes. As such, this is an appropriate tool for IROLs, as it does not require tagging before schedule changes are made. Current drafting team to complete

DIRECTIVE: S- Ref 10142 - Eliminate the references to the regional reliability organization as an applicable entity. Paragraph 896. In the NOPR, the Commission proposed to approve the Reliability Standard as mandatory and enforceable. In addition, as a separate act

Para 896

"Eliminate the references to the regional reliability organization as an applicable entity.

Paragraph 896. In the NOPR, the Commission proposed to approve the Reliability Standard as mandatory and enforceable. In addition, as a separate action under section 215(d)(5), the NOPR proposed to direct the ERO to develop modifications to Requirement R1291 to substitute Regional Entity for regional reliability organization and reflect NERCs Rules of Procedure for registering, certifying and verifying entities, including reliability coordinators. Commenters do not raise any concerns regarding the proposed action. Accordingly, for the reasons stated in the NOPR, the Commission approves IRO-001-1 as mandatory and enforceable. In addition, for the reasons discussed in the NOPR, the Commission directs the ERO to develop modifications to the Reliability Standard through the Reliability Standards development process that reflect the process set forth in the NERC Rules of Procedures and eliminate the regional reliability organization as an applicable entity."

Assigned: Project 2006-06 - Reliability Coordination

The SDT has removed references to the RRO.

Status: In Drafting Delivery: 2012

Solution Details:

The SDT has removed references to the RRO. R1 is proposed to be revised as:

R1.The Electric Reliability Organization shall certify at least one or more Reliability Coordinators to continuously assess transmission reliability and coordinate emergency operations among the operating entities within each region and across the regional boundaries. [Violation Risk Factor: High][Time Horizon: Operations Assessment

DIRECTIVE: S- Ref 10144 - Consider commenters suggestions as part of the standards development process. 893. FirstEnergy suggests that NERC clarify whether Requirement R8, which requires entities to comply with a reliability coordinator directive unless such action

Para 897

"Consider commenters suggestions as part of the standards development process. 893. FirstEnergy suggests that NERC clarify whether Requirement R8, which requires entities to comply with a reliability coordinator directive unless such actions would violate safety, equipment or regulatory or statutory requirements, refers to personnel safety, equipment safety or both. In addition, it suggests the establishment of a chain of command so that, for example, if a generator receives conflicting instructions from a balancing authority and a transmission operator, it can determine which instruction governs.

Consider commenters suggestions as part of the standards development process. Paragraph 892. APPA supports the approval of the Reliability Standard but expresses concern that the Version 1 standard does not include Measures that correspond to Requirements R2 and R9. APPA emphasizes the need for Measures corresponding to Requirement R9, which requires the reliability coordinator to act in the interests of reliability for the overall reliability coordinator area and the Interconnection before the interests of any other entity. APPA supports Requirement R8 with the extended applicability, provided that applicability is determined by reference to the NERC compliance registry. APPA agrees that the regional reliability organization should be eliminated as an applicable entity and suggests it be replaced with Regional Entities.

894. Requirement R3 provides that a reliability coordinator shall have clear decisionmaking authority to act and direct actions to be taken by applicable entities to preserve the integrity and reliability of the Bulk Electric System and these actions shall be taken without delay but no longer than 30 minutes. Santa Clara contends that some actions would require driving to a remote site and therefore, mandating completion of the required action within 30 minutes would be unreasonable. Thus, it recommends that NERC modify Requirement R3 to provide that actions shall commence without delay, but in any event shall commence within 30 minutes.

895. California Cogeneration comments that the Reliability Standard fails to address the operational limitations of QFs because they have contractual obligations to provide thermal energy to their industrial hosts. It contends that a QF can be directed to change operations only in the case of a system emergency, pursuant to 18 CFR 292.307."

Assigned: Project 2006-06 - Reliability Coordination

Modified R2

Status: In Drafting Delivery: 2012

Solution Details:

2 now (R3) reads: R3.Each Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator and Distribution Provider shall comply with its Reliability Coordinators direction per Requirement R2 unless the direction per Requirement R2 can not be implemented or such actions would violate safety, equipment, regulatory or statutory

requirements. [Violation Risk Factor: High] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]

If a generator receives conflicting directives, the generator should contact the Reliability Coordinator for clarification. All of the requirements of IRO-001 relate to Reliability Coordinator directives.

DIRECTIVE: S- Ref 10143 - Consider adding measures and levels of non-compliance. . Further, the Commission directs the ERO to consider adding Measures and Levels of Non-Compliance in the Reliability Standard as requested by APPA.

Para 897

"Consider adding measures and levels of non-compliance. . Further, the Commission directs the ERO to consider adding Measures and Levels of Non-Compliance in the Reliability Standard as requested by APPA."

Assigned: Project 2006-06 - Reliability Coordination

Added measures and VSLs for each requirement.

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has added measures and VSLs (which replaced levels of non-compliance) for each requirement

DIRECTIVE: S- Ref 10145 - Require a minimum set of tools for the RC

Para 905

"Further, consistent with the NOPR, the Commission directs the ERO to modify IRO-002-1 to require a minimum set of tools that must be made available to the reliability coordinator. We believe that this requirement will ensure that a reliability coordinator has the tools it needs to perform its functions. Further, as noted by Dominion, such a requirement promotes a more proactive approach to maintaining reliability."

Assigned: Project 2009-02 - Real Time Reliability Monitoring and Analysis Capabilities

DIRECTIVE: S- Ref 10147 - Consider the suggestions of APPA, Entergy, and Xcel when doing so.

Para 914

"<From 693> Consider the suggestions of APPA, Entergy, and Xcel when doing so."

Assigned: Project 2006-06.2 - Phase 2 of Reliability Coordination: IRO-003

DIRECTIVE: S- Ref 10146 - Create criteria to define the term critical facilities in a reliability coordinators area and its adjacent systems.

Para 914

"<From 693> Create criteria to define the term critical facilities in a reliability coordinators area and its adjacent systems."

Assigned: Project 2006-06.2 - Phase 2 of Reliability Coordination: IRO-003

DIRECTIVE: S- Ref 10149 - In response to APPAs concern that NERC did not provide a Measure for each Requirement, we reiterate that it is in the EROs discretion whether each Requirement requires a corresponding Measure. The ERO should consider this issue through the

Para 934

"In response to APPAs concern that NERC did not provide a Measure for each Requirement, we reiterate that it is in the EROs discretion whether each Requirement requires a corresponding Measure. The ERO should consider this issue through the Reliability Standards development process"

Assigned: Project 2006-06 - Reliability Coordination

DIRECTIVE: S- Ref 10148 - Para 935 we direct the ERO to modify IRO-004-1 through the Reliability Standards development process to require the next-day analysis to identify control actions that can be implemented and effective within 30 minutes after a contingency

Para 935

"935. Accordingly, we approve Reliability Standard IRO-004-1 as mandatory and enforceable. Further, we direct the ERO to modify IRO-004-1 through the Reliability Standards development process to require the next-day analysis to identify control actions that can be implemented and effective within 30 minutes after a contingency. The Commission also directs the ERO to consider adding Measures and Levels of Non-Compliance to the Reliability Standard as requested by APPA."

Assigned: Project 2006-06 - Reliability Coordination

TBD

Status: In Drafting Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10150 - Provide further clarification that reliability coordinators and transmission operators direct control actions, not LSEs as part of the standard development process. Paragraph 950. We do not share TAPS concern regarding LSEs initiating load

Para 950

"Para 950

We do not share TAPS concern regarding LSEs initiating load shedding as their own control action to respect IROLs or SOLs. The appropriate control actions to respect IROLs and SOLs are the responsibilities of a reliability coordinator and transmission operator. If load shedding is required, it is the responsibility of a reliability coordinator or a transmission operator to direct the appropriate entities including LSEs to carry it out. However, we urge the ERO to provide further clarification in this regard and include TAPS concern in developing the modification of this Reliability Standard.

Para 944

TAPS raises an issue with Requirement R13 that states in part [i]n instances where there is a difference in derived limits, Load-Serving Entities shall always operate the Bulk Electric System to the most limiting parameter. TAPS further states that, since LSEs do not operate the system within SOLs or IROLs, the only thing such entities, particularly small ones, can do is shed load. It contends that if the Reliability Standard is mandatory, it should apply only within the parameters proposed by NERC subject to its Bulk Electric System definition and its June registry criteria. Further, given the apparent error in the Reliability Standard, the Commission should ask NERC to re-examine it.

"

Assigned: Project 2006-06 - Reliability Coordination

Proposed IRO-001, R1

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has proposed IRO-001, R1 to address this directive: Each Reliability Coordinator shall act or direct actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, Distribution Providers and Purchasing-Selling Entities within its Reliability Coordinator Area to prevent or mitigate the magnitude or duration of events that result in Adverse Reliability Impacts. [Violation Risk Factor: High][Time Horizon: Real-time Operations and Same Day Operations]

DIRECTIVE: S- Ref 10153 - Conduct a survey on IROL practices and actual operating experiences by requiring reliability coordinators to report any violations of IROLS, their causes, the date and time, the durations and magnitudes in which actual operations exceeds IR

Para 951

"Conduct a survey on IROL practices and actual operating experiences by requiring reliability coordinators to report any violations of IROLS, their causes, the date and time, the durations and magnitudes in which actual operations exceeds IROLS to NERC."

Assigned: Project 2006-06 - Reliability Coordination

Should this be handled by the OC?

Status: Filed Delivery: 2007

Solution Details:

Should this be handled by the OC?

DIRECTIVE: S- Ref 10152 - Measures and levels of non-compliance specific to IROL violations must be commensurate with the magnitude, duration, frequency, and causes of the violations and whether these occur during normal or contingency conditions. Paragraph 951. Ac

Para 951

"Measures and levels of non-compliance specific to IROL violations must be commensurate with the magnitude, duration, frequency, and causes of the violations and whether these occur during normal or contingency conditions. Paragraph 951. Accordingly, the Commission approves Reliability Standard IRO-005-1 as mandatory and enforceable. Further, because IRO-005-1 has no Measures or Levels of Non-Compliance, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to IRO-005-1 through the Reliability Standards development process that includes Measures and Levels of Non-Compliance. The Commission further directs that the Measures and Levels of Non-Compliance specific to IROL violations must be commensurate with the magnitude, duration, frequency and causes of the violations and whether these occur during normal or contingency conditions."

Assigned: Project 2006-06 - Reliability Coordination

Added measures and VSLs for each requirement.

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has added measures and VSLs (which replaced levels of non-compliance) for each requirement.

DIRECTIVE: S- Ref 10151 - Include measures and levels of non-compliance.

Para 951

"Include measures and levels of non-compliance."

Assigned: Project 2006-06 - Reliability Coordination

Added measures and VSLs for each requirement.

Status: Filed Delivery: 2008

Solution Details:

The RCSDT has added measures and VSLs (which replaced levels of non-compliance) for each requirement.

DIRECTIVE: S- Ref 10154 - Include a clear warning that TLR procedures are not appropriate and not effective to mitigate an actual IROL violation.

Para 961

"Include a clear warning that TLR procedures are not appropriate and not effective to mitigate an actual IROL violation."

Assigned: Project 2006-08 - Transmission Loading Relief

IRO-006 R1

Status: Filed Delivery: 2007

Solution Details:

IRO-006 R1

DIRECTIVE: S- Ref 10155 - Identifies the available alternatives to mitigate an IROL violation other than the use of the TLR procedure.

Para 964

"Identifies the available alternatives to mitigate an IROL violation other than the use of the TLR procedure."

Assigned: Project 2006-08 - Transmission Loading Relief

IRO-006 R1
Status: Filed Delivery: 2007
Solution Details:
IRO-006 R1

DIRECTIVE: S- Ref 10156 - Modify the WECC and ERCOT load relief procedures to ensure consistency with the standard form of the reliability standard including requirements, measures, and levels of non-compliance.

Para 964

"Modify the WECC and ERCOT load relief procedures to ensure consistency with the standard form of the reliability standard including requirements, measures, and levels of non-compliance."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Updated WECC and ERCOT filings made

Status: Filed Delivery: 2012

Solution Details:

IRO-006-TRE-1 filed on 2/1/2012. Updated WECC stadnard filed back in 2009.

DIRECTIVE: S- Ref 10158 - Consider the suggestions of MidAmerican and Xcel when developing the modification.

Para 964

"Consider the suggestions of MidAmerican and Xcel when developing the modification."

Assigned: Project 2006-08 - Transmission Loading Relief

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10157 - Para 992. In addressing MISO-PJMs claim that the ERO should modify IRO-006-3 and the MISO-PJM regional difference to require netting generation-to-load impacts to recognize counterflow, we will let the ERO Operating Subcommittee address the

Para 992

"992.In addressing MISO-PJMs claim that the ERO should modify IRO-006-3 and the MISO-PJM regional difference to require netting generation-to-load impacts to recognize counterflow, we will let the ERO Operating Subcommittee address the technical merits of netting flow impacts in the interchange distribution calculator."

Assigned: Project OC PC SubC - For directives assigned to the Standing Committees

FERC-Order on Violation Risk Factors-Docket Nos. RR07-9 and RR07-10

Issued 5/18/2007

DIRECTIVE: S- Ref 10629 - directing NERC to file modifications to 28 of the proposed Violation Risk Factors within 15 days. This, we are approving as modified the proposed Violation Risk Factors effective June 1, 2007. In addition, the Commission directs NERC to submit a compliance filing within 60 days of this order that explains the rationale for assigning certain risk factor levels in approximately 75 instances.

Para 2

"Needs to be reserached - no quote in DB"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10625 - With regard to guidelines (4) and (5), while we accept the Violation Risk Factor assignments at this time, we direct NERC to submit a compliance filing to address the Commissions concerns with regard to the guidelines the Commission applied to each Requ

Para 43

"With regard to guidelines (4) and (5), while we accept the Violation Risk Factor assignments at this time, we direct NERC to submit a compliance filing to address the Commissions concerns with regard to the guidelines the Commission applied to each Requirement listed in Appendix B and to provide justification for NERCs Violation Risk Factor assignment. The Commission may change its determination based on the explanation provided in the compliance filing.

44. In addition to those approved Reliability Standards"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10626 - In addition to those approved Reliability Standards identified by NERC where Requirements, by omission, were not assigned a Violation Risk Factor, the Commission has also identified others. Requirements for Reliability Standards MOD-016-1, R2, R2.1, R3,

Para 44

"In addition to those approved Reliability Standards identified by NERC where Requirements, by omission, were not assigned a Violation Risk Factor, the Commission has also identified others. Requirements for Reliability Standards MOD-016-1, R2, R2.1, R3, and R3.1 were not assigned Violation Risk Factors. The Commission directs NERC to submit these Violation Risk Factor assignments in its compliance filing"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10627 - The Commissions review has also found several instances where Violation Risk Factors were inappropriately assigned. For example, our review found instances where Violation Risk Factors were assigned to explanatory statements, phrases and/or text. We dir

Para 45

"The Commissions review has also found several instances where Violation Risk Factors were inappropriately assigned. For example, our review found instances where Violation Risk Factors were assigned to explanatory statements, phrases and/or text. We direct NERC to remove Violation Risk Factor assignments in these instances in the compliance filing required in 15 days."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10628 - direct NERC to submit a complete Violation Risk Factor matrix encompassing each Commission-approved Reliability Standard. The matrix should include the correct corresponding version number for each Requirement and its associated Violation Risk Factor.

Para 46

"direct NERC to submit a complete Violation Risk Factor matrix encompassing each Commission-approved Reliability Standard. The matrix should include the correct corresponding version number for each Requirement and its associated Violation Risk Factor."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

FERC-Order on Compliance Filing-Docket No. RR06-1-007

Issued 6/7/2007

DIRECTIVE: S- Ref 10630 - directs NERC to make a compliance filing within 30 days of the date of this order.

Para 1

"directs NERC to make a compliance filing within 30 days of the date of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10631 - direct NERC to develop violation severity levels for each requirement and subrequirement of each Reliability Standard, either through the Reliability Standards development process or through another expedited process, and submit them to the Commission b

Para 80

"direct NERC to develop violation severity levels for each requirement and subrequirement of each Reliability Standard, either through the Reliability Standards development process or through another expedited process, and submit them to the Commission by March 1, 2008. Although NERC proposes to develop violation severity levels over the next three years, we cannot accept NERCs proposal. NERC itself admits that the existing levels of non-compliance are not sufficient going forward in an ERO environment. Because of this, we direct NERC to replace them with violation severity levels at the earliest possible date. We are requiring that violation severity levels be developed and submitted for approval no later than March 1, 2008 so that the Commission can act on them prior to the 2008 summer period."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10632 - NERC shall submit a compliance filing as to the modifications and submissions required in this order within 60 days of the date of its issuance.

Para B

"NERC shall submit a compliance filing as to the modifications and submissions required in this order within 60 days of the date of its issuance."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

FERC-Order Approving Regional Reliability Standards for WECC-Docket No. RR07-11

Issued 6/8/2007

DIRECTIVE: S- Ref 10401 - concerned regarding the circumstances under which WECC-TOP-STD-007-0 would be implemented and the amount of time an entity is allowed to be in violation of an IROL without the possibility of being found in non-compliance. Accordingly, the C

Para 108

"concerned regarding the circumstances under which WECC-TOP-STD-007-0 would be implemented and the amount of time an entity is allowed to be in violation of an IROL without

the possibility of being found in non-compliance. Accordingly, the Commission directs NERC to submit a filing within 30 days of the date of this order explaining whether Requirement WR1.b is consistent with the second interpretation of IRO-005-1 (two contingencies away from cascading failure)."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10402 - that WECC in developing a permanent, replacement regional Reliability Standard: (1) clarify any inconsistency between the Requirement WR1.b and corresponding Measure WM1; and (2) ensure that the requirements currently set forth in Measures

Para 109

"that WECC in developing a permanent, replacement regional Reliability Standard: (1) clarify any inconsistency between the Requirement WR1.b and corresponding Measure WM1; and (2) ensure that the requirements currently set forth in Measures WM1 are set forth in the Requirements and that corresponding Measures simply quantify the frequency, duration and magnitude of the violations as determined by the Requirements."

Assigned: Project Regional - For directives assigned to regions

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10403 - Para 110 . we expect that WECC will address the shortcomings identified by NERC in developing a permanent, replacement regional Reliability Standard.

Para 110

"101.NERC approved WECC-TOP-STD-007-0 with the condition that WECC meet its commitment to address identified shortcomings, including formatting concerns and inconsistency between the NERC and WECC definition of the term disturbance.

110.In addition, we expect that WECC will address the shortcomings identified by NERC in developing a permanent, replacement regional Reliability Standard."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10167 - Para 72. We also expect that WECC, in developing a permanent, replacement regional Reliability Standard, will address the shortcomings identified by NERC. Para 64. NERC approved WECC-IRO-STD-006-0 on the condition that WECC meet its commit

Para 110

"In addition, we expect that WECC will address the shortcomings identified by NERC in developing a permanent, replacement regional Reliability Standard."

Assigned: Project Regional - For directives assigned to regions

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10443 - Para 117 . we expect that WECC, in developing a permanent, replacement standard, will address the shortcomings identified by NERC regarding WECC-VAR-STD-002a-1 including to address identified format-related shortcomings.

Para 117

"117.As with the other regional Reliability Standards, we expect that WECC, in developing a permanent, replacement standard, will address the shortcomings identified by NERC regarding WECC-VAR-STD-002a-1.

113.NERC approved WECC-VAR-STD-002a-1 with the condition that WECC meet its commitment to address identified format-related shortcomings."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10444 - Para 123 we expect WECC to address the shortcomings identified by NERC when developing a permanent, replacement standard including to address identified format-related shortcomings.

Para 123

"123.We reject Xcels protest since the term power system stabilizer is generally understood as described above, and Xcel has not provided any explanation why the regional Reliability Standard is deficient without a formal definition. Finally, as with the other regional standards, we expect WECC to address the shortcomings identified by NERC when developing a permanent, replacement standard.

119.NERC approved WECC-VAR-STD-002b-1 and identified several format-related shortcomings for WECC to address."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10018 - Para 54. The Commission agrees with the shortcomings identified by NERC regarding WECC-BAL-STD-002-0 and expects WECC in developing a permanent, replacement standard to address these shortcomings as it has committed to do.

Para 54

"54.The Commission agrees with the shortcomings identified by NERC regarding WECC-BAL-STD-002-0 and expects WECC in developing a permanent, replacement standard to address these shortcomings as it has committed to do. For example, for each of the proposed regional Reliability Standards, (1) regional definitions should conform to the definitions set forth in the NERC glossary, unless a specific deviation has been justified; and (2) documents that are referenced in the Reliability Standard should be attached to the Reliability Standard. Likewise, with respect to this and each of the proposed regional Reliability Standards, we agree with NERC that WECC must remove the sanctions table that is inconsistent with NERCs Sanction Guidelines and develop Violation Risk Factors (levels of non-compliance) and Violation Severity Levels that conform to corresponding NERC standards. In approving NERCs Sanction Guidelines, the Commission emphasized the need to achieve consistency in the assessment of penalties across the regions. Elimination of the WECC sanctions table will further this goal."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10019 - Para 55. Further, it is important that regional Reliability Standards and NERC Reliability Standards achieve a reasonable level of consistency in the structure of a Reliability Standard so that there is a common understanding of the element

Para 55

"55.Further, it is important that regional Reliability Standards and NERC Reliability Standards achieve a reasonable level of consistency in the structure of a Reliability Standard so that there is a common understanding of the elements. In particular, we agree with NERC that WECC should eliminate the excuse of performance provision of the regional Reliability Standards, which is inconsistent with NERCs format. While the factors identified in the excuse of performance provision may be legitimate mitigating factors for WECC to consider when assessing a penalty on a case-by-case basis, the Commission disagrees that a Reliability Standard should contain a blanket waiver or excuse for non-compliance. We expect WECC, in developing a permanent, replacement standard, to address these concerns of both NERC and the Commission. In general, with respect to both the eight proposed Reliability Standards as well as other standards that are being developed by WECC, it is essential that WECC employ a higher level of precision and consistency."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10020 - Para 56 - Xcel and California Cogeneration contend that the Commission should remand WECC-BAL-STD-002-0 because of ambiguities in the terms load responsibility and firm transaction. as WECC indicated in its response to stakeholder

Para 56

"56.In Order No. 672, the Commission, in discussing the factors it would consider in determining whether a proposed Reliability Standard met the statutory standard for approval, explained that a proposed Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply. Xcel and California Cogeneration contend that the Commission should remand WECC-BAL-STD-002-0 because of ambiguities in the terms load responsibility and firm transaction. As discussed above, the Commission believes that the regional Reliability Standard is sound, as it provides greater stringency than NERCs reserve requirements and meets a need of the Western Interconnection. While commenters identify potential ambiguities, we do not believe that these potential uncertainties demonstrate a degree of ambiguity within the regional Reliability Standard that requires us to remand it. Rather, as WECC indicated in its response to stakeholders in the regional Reliability Standards development process, WECC will provide an opportunity to address these concerns when developing a permanent, replacement standard. The Commission agrees that this is a reasonable approach and will expect WECCs submission of a replacement standard to adequately address these stakeholder concerns."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10165 - direct that WECC in developing a permanent, replacement Reliability Standard, clarify the term receiver and the applicability of the standard.

Para 70

"direct that WECC in developing a permanent, replacement Reliability Standard, clarify the term receiver and the applicability of the standard."

Assigned: Project Regional - For directives assigned to regions

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10166 - PPLs contention that LSEs may not be able to meet the Requirements of the regional Reliability Standard. While we are approving WECC-IRO-STD-006 as mandatory and enforceable, we direct WECC to address PPLs concerns in developing a permanent

Para 71

"PPLs contention that LSEs may not be able to meet the Requirements of the regional Reliability Standard. While we are approving WECC-IRO-STD-006 as mandatory and enforceable, we direct WECC to address PPLs concerns in developing a permanent, replacement regional Reliability Standard"

Assigned: Project Regional - For directives assigned to regions

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10347 - In addition, we expect that WECC will address the shortcomings identified by NERC in developing a permanent, replacement regional Reliability Standard.

Para 78

"78.The Commission approves WECC-PRC-STD-001-1 as mandatory and enforceable in the Western Interconnection. The Commission expects WECC, in developing replacement standards, to address the shortcomings identified by NERC.

75.NERC approved WECC-PRC-STD-001-1 with the condition that WECC meet its commitment to address the shortcomings identified by NERC in a January 9, 2007 letter to WECC, including several formatting concerns."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10348 - Para 89. The Commission agrees with the shortcomings identified by NERC regarding WECC-PRC-STD-003-1 and expects WECC in developing a permanent, replacement standard to address these shortcomings as it has committed to do.

Para 89

"89.The Commission agrees with the shortcomings identified by NERC regarding WECC-PRC-STD-003-1 and expects WECC in developing a permanent, replacement standard to address these shortcomings as it has committed to do. In particular, we believe that regional definitions should conform to the definitions set forth in the NERC glossary unless a specific deviation has been justified. Likewise, each Requirement should have a corresponding Measure and, in this case, vice versa."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

DIRECTIVE: S- Ref 10354 - Para 98. The Commission agrees with NERCs concerns regarding the format and content of WECC-PRC-STD-005-1 and expects WECC, in developing a permanent, replacement standard, to address these concerns, including but not limited to inclusion o

Para 98

"98.The Commission agrees with NERCs concerns regarding the format and content of WECC-PRC-STD-005-1 and expects WECC, in developing a permanent, replacement standard, to address these concerns, including but not limited to inclusion of all relevant documents."

Assigned: Project Regional - For directives assigned to regions

Fixes from 7/7/2011

Status: Pending Delivery: 2009

Solution Details:

Fixes added based on legal review July 2011 - Andy Dressel, Dave Cook, Liz Heenan

FERC-Order on Compliance Filing-Docket Nos. RR07-9 and RR07-10

Issued 11/16/2007

DIRECTIVE: S- Ref 10633 - directs NERC to make a compliance filing within 30 days of the date of this order.

Para 1

"directs NERC to make a compliance filing within 30 days of the date of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10634 - directs NERC to revise the Violation Risk Factor assignment for BAL-001-0, Requirements R1 and R2 to medium.

Para 25

"directs NERC to revise the Violation Risk Factor assignment for BAL-001-0, Requirements R1 and R2 to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10635 - directs NERC to revise the Violation Risk Factor for BAL-002-0, Requirement BAL-002-0, Requirement R2 to medium.

Para 29

"directs NERC to revise the Violation Risk Factor for BAL-002-0, Requirement BAL-002-0, Requirement R2 to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10636 - directs NERC to assign a Violation Risk Factor of medium to BAL-002-0, Requirement R4.

Para 30

"directs NERC to assign a Violation Risk Factor of medium to BAL-002-0, Requirement R4."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10637 - directs NERC to revise the Violation Risk Factor for BAL-004-0, Requirement R3 to medium.

Para 43

"directs NERC to revise the Violation Risk Factor for BAL-004-0, Requirement R3 to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10638 - directs NERC to revise the subject Violation Risk Factors to medium.[re: BAL-005-0 R1.1, 1.2, 1.3]

Para 47

"directs NERC to revise the subject Violation Risk Factors to medium.[re: BAL-005-0 R1.1, 1.2, 1.3]"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10639 - directs NERC to revise the Violation Risk Factor assignment for BAL-005-0, Requirement R2 to high.

Para 51

"directs NERC to revise the Violation Risk Factor assignment for BAL-005-0, Requirement R2 to high."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10640 - directs NERC to revise the subject Violation Risk Factor to medium.

Para 55

"directs NERC to revise the subject Violation Risk Factor to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10641 - directs NERC to revise the Violation Risk Factor for BAL-005-0, Requirement R17 to medium

Para 58

"directs NERC to revise the Violation Risk Factor for BAL-005-0, Requirement R17 to medium"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2007

Solution Details:

Resolved

DIRECTIVE: S- Ref 10642 - directs NERC to revise the Violation Risk Factors for FAC- 008-1, Requirements R1.1, R1.2, R1.2.1, and R1.2.2 to medium.

Para 62

"directs NERC to revise the Violation Risk Factors for FAC- 008-1, Requirements R1.1, R1.2, R1.2.1, and R1.2.2 to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2007
Solution Details:
Resolved

DIRECTIVE: S- Ref 10643 - directs NERC to revise the subject Violation Risk Factor to medium.

Para 65

"directs NERC to revise the subject Violation Risk Factor to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2007
Solution Details:
Resolved

DIRECTIVE: S- Ref 10644 - directs NERC to submit, within 30 days, a compliance filing containing these modifications incorporated into a revised version of the complete Violation Risk Factor matrix encompassing each Commission-approved Reliability Standard

Para 66

"directs NERC to submit, within 30 days, a compliance filing containing these modifications incorporated into a revised version of the complete Violation Risk Factor matrix encompassing each Commission-approved Reliability Standard"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2007
Solution Details:
Resolved

FERC-Facilities Design, Connections and Maintenance Reliability Standards (Order 705)

Issued 12/27/2007

DIRECTIVE: S- Ref 10591 - The Commission directs the ERO to consider allowing for the 30 minute system adjustment period, the system must be capable of withstanding an N-1 contingency, with load shedding available to system operators as a measure of last resort to prevent cascading failures.

Order 705

"Para 53. In response to the NYSRC and NYISO comments, the Commission reiterates its holding that addressed similar language on loss of load in Order No. 693, regarding Reliability Standard TPL-002-0. In Order No. 693, the Commission noted that allowing for the 30 minute system adjustment period, the system must be capable of withstanding an N-1 contingency, with load shedding available to system operators as a measure of last resort to prevent cascading failures. Order No. 693 stated that the transmission system should not be planned to permit load shedding for a single contingency. Order No. 693 directed NERC to clarify the planning Reliability Standard TPL-002-0 accordingly. The Commission reaches the same conclusion here. We will approve Reliability Standard FAC-010-1, Requirement R2.3 and the ERO should ensure that the clarification developed in response to Order No. 693 is made to the FAC Reliability Standards as well. Amerens comments concerning the operational timeframe do not affect FAC-010-1, which concerns the planning time frame.

Para 1788. The Commission agrees with NRC that for operations purposes the N-1 condition is always analyzed from the conditions being experienced. In other words, allowing for the 30 minute system adjustment period, the system must be capable of withstanding an N-1 contingency, with load shedding available to system operators as a measure of last resort to prevent cascading failures. However, for planning purposes, a different analysis applies. The N-1 condition is a Category B event under TPL-002-0, and, following the N-1 contingency, the system must be stable and thermal loading and voltages be within applicable limits. Some adjustment of generation or other controls is permitted to return loadings to within continuous ratings, provided the loadings before adjustments are within the emergency or short-term ratings.

Under TPL-002-0 the system is not required to be able to withstand another N-1 contingency. That N-1 requirement is a Category C contingency which is addressed by TPL-003-0. The Commission has addressed NRCs comment concerning N-1 contingencies in real-time operation in TOP-002. In regard to the specific revisions proposed by NRC, the Commission directs the ERO to consider these as part of the Reliability Standards development process.

"

Assigned: Project 2008-04 - Facility Ratings - Order 705

TBD

Status: Filed Delivery: 2008

Solution Details:

TBD

DIRECTIVE: S- Ref 10596 - remand NERCs definition of Cascading Outages subject to NERC refiling.

Para 014

"remand NERCs definition of Cascading Outages subject to NERC refiling."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10601 - direct that any revised TPL Reliability Standards must reflect consistency in the lists of contingencies between the two

Para 049 and Footnote #38

"Para 49

Because the TPL series of Reliability Standards sets the foundation for the types of contingencies to be considered to meet requirements in the FAC Reliability Standards, and the FAC Reliability Standards are intended to be consistent with the set of contingencies identified in the TPL Reliability Standards, the Commission would be concerned if the TPL Reliability Standards use one set of contingencies to plan the system, while the FAC Reliability Standards generate another set to calculate SOLs in the planning horizon. As NERC acknowledges, as the TPL series of Reliability Standards is modified, conforming changes to the corresponding lists of contingencies in the FAC or MOD series of Reliability Standards are expected to be necessary to ensure consistency in the list of contingencies. Similarly, the Commission believes that as FAC or MOD Reliability Standards are updated, the TPL series of Reliability Standards must be updated to remain consistent. Therefore, we direct that any revised TPL Reliability Standards must reflect consistency in the lists of contingencies between the two Reliability Standards. Should NERC file such revised TPL Reliability Standards, the Commission will review the resulting Reliability Standards for compliance with our directives in Order Nos. 890 and 693 concerning consistency for SOLs, transfer capability and TTC.

Footnote 38

Similar consistency issues may arise with the transmission operating and planning (TOP) Reliability Standards because those Reliability Standards implement the SOLs and IROLs determined in the FAC Reliability Standards.

"

Assigned: Project 2006-02 - Assess Transmission Future Needs

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10602 - direct NERC to revise the Reliability Standard through the Reliability Standards development process to address our concern. This could, for example, be accomplished by deleting the phrase, e.g., load greater than studied from sub-Requirement R.2.3.2.

Para 070

"direct NERC to revise the Reliability Standard through the Reliability Standards development process to address our concern. This could, for example, be accomplished by deleting the phrase, e.g., load greater than studied from sub-Requirement R.2.3.2."

Assigned: Project 2008-04 - Facility Ratings - Order 705

DIRECTIVE: S- Ref 10592 - directs NERC to modify these ten Violation Risk Factors.81

Para 135

"directs NERC to modify these ten Violation Risk Factors.81"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10593 - will not allow NERC to reconsider the Violation Risk Factor designations in this instance but, rather, direct below that NERC make specific modifications to its designations. NERC must submit a compliance filing with the revised Violation Risk Factors n

Para 136

"will not allow NERC to reconsider the Violation Risk Factor designations in this instance but, rather, direct below that NERC make specific modifications to its designations. NERC must submit a compliance filing with the revised Violation Risk Factors no later than 90 days before the effective date of the relevant Reliability Standard."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10594 - directs NERC to submit a complete Violation Risk Factor matrix encompassing each Commission-approved Reliability Standard and including the correct corresponding version number for each Requirement when it files revised Violation Risk Factors for the FA

Para 138

"directs NERC to submit a complete Violation Risk Factor matrix encompassing each Commission-approved Reliability Standard and including the correct corresponding version number for each Requirement when it files revised Violation Risk Factors for the FAC Reliability Standards."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10595 - In revising the Violation Risk Factors, NERC must address the Commissions concerns, as outlined below, and also follow the five guidelines for evaluating the validity of each Violation Risk Factor assignment.

Para 138

"In revising the Violation Risk Factors, NERC must address the Commissions concerns, as outlined below, and also follow the five guidelines for evaluating the validity of each Violation Risk Factor assignment."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008
Solution Details:
Resolved

DIRECTIVE: S- Ref 10597 - direct WECC to file Violation Risk Factors for the FAC-010-1 and FAC-011-1 no later than the effective date of the applicable Reliability Standard.

Para 146

"direct CC to file Violation Risk Factors for the FAC-010-1 and FAC-011-1 no later than the effective date of the applicable Reliability Standard."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2008
Solution Details:
Resolved

DIRECTIVE: S- Ref 10598 - Commission directs NERC to revise the Violation Risk Factor assigned to FAC-010-1, Requirements R2.1-R2.2 to high.

Para 165

"Commission directs NERC to revise the Violation Risk Factor assigned to FAC-010-1, Requirements R2.1-R2.2 to high."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2008
Solution Details:
Resolved

DIRECTIVE: S- Ref 10599 - directs NERC to assign a high Violation Risk Factor to FAC-014-1, Requirement R5 and sub- Requirements R5.1.

Para 175

"directs NERC to assign a high Violation Risk Factor to FAC-014-1, Requirement R5 and sub-Requirements R5.1."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2008
Solution Details:
Resolved

DIRECTIVE: S- Ref 10600 - directs NERC to ensure that the proposed Violation Risk Factor for FAC- 010-1, Requirement R3.6 is changed from low to medium.

Para 178

"directs NERC to ensure that the proposed Violation Risk Factor for FAC- 010-1, Requirement R3.6 is changed from low to medium."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2008
Solution Details:
Resolved

FERC-Mandatory Reliability Standards for Critical Infrastructure Protection (Order 706)
Issued 1/18/2008

DIRECTIVE: S- Ref 10445 - NERC is directed to develop a timetable for development of the modifications to the CIP Reliability Standards and, if warranted, to develop and file with the Commission for approval, a second implementation plan.

Para 013

"NERC is directed to develop a timetable for development of the modifications to the CIP Reliability Standards and, if warranted, to develop and file with the Commission for approval, a second implementation plan."

Assigned: Project 2008-06 - Cyber Security - Order 706

Ongoing

Status: Filed Delivery: 2008

Solution Details:

Ongoing

DIRECTIVE: S- Ref 10820 The Commission believe that NERC should register demand side aggregators if the loss of their load shedding capability, for reasons such as a cyber incident, would affect the reliability or operability of the Bulk-Power System.

Para 051

"Likewise, we believe that NERC should register demand side aggregators if the loss of their load shedding capability, for reasons such as a cyber incident, would affect the reliability or operability of the Bulk-Power System. EEI and ISO/RTO Council concur that the need for the registration of demand side aggregators may arise, but state that it is not clear whether aggregators fit any of the current registration categories defined by NERC. We agree with EEI and ISO/RTO Council that NERC should consider whether there is a current need to register demand side aggregators and, if so, to address any related issues and develop criteria for their registration."

Assigned: Project Compliance Internal - For directives assigned to Compliance

DIRECTIVE: S- Ref 10447 - The Commission directs the ERO to develop modifications to the CIP Reliability Standards that require a responsible entity to implement plans, policies and procedure that it must develop pursuant to the CIP Reliability Standards.

Para 075

"We direct the ERO to develop modifications to the CIP Reliability Standards that require a responsible entity to implement plans, policies and procedure that it must develop pursuant to the CIP Reliability Standards"

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10560 - We direct the ERO to submit a work plan for Commission approval for developing and filing for approval the modifications to the CIP Reliability Standards that we are directing in this Final Rule

Para 089

"We direct the ERO to submit a work plan for Commission approval for developing and filing for approval the modifications to the CIP Reliability Standards that we are directing in this Final Rule"

Assigned: Project 2008-06 - Cyber Security - Order 706

Ongoing

Status: Filed Delivery: 2008

Solution Details:

Ongoing

DIRECTIVE: S- Ref 10448 - We direct the ERO, in its development of a work plan, to consider developing modifications to CIP-002-1 and the provisions regarding technical feasibility exceptions as a first priority, before developing other modifications required by the Final Rule.

Para 090

"We direct the ERO, in its development of a work plan, to consider developing modifications to CIP-002-1 and the provisions regarding technical feasibility exceptions as a first priority, before developing other modifications required by the Final Rule."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10561 - We direct the ERO to require more frequent, semiannual, self-certifications prior to the date by which full compliance is required

Para 096

"We direct the ERO to require more frequent, semiannual, self-certifications prior to the date by which full compliance is required"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10564 - The Commission directs the ERO to develop modifications to the CIP Reliability Standards that do not include this term. We note that many commenters, including NERC, agree that the reasonable business judgment language should be removed based largely on

Para 128 (Related paragraphs: 106 thru 138)

"The Commission directs the ERO to develop modifications to the CIP Reliability Standards that do not include this term. We note that many commenters, including NERC, agree that the reasonable business judgment language should be removed based largely on the rationale articulated by the Commission in the CIP NOPR."

Assigned: Project 2008-06 - Cyber Security - Order 706

Complete. Version 2 filed in May, 2009 and approved by FERC on September 30, 2009.

Status: Filed Delivery: 2009

Solution Details:

Complete. Version 2 filed in May, 2009 and approved by FERC on September 30, 2009.

DIRECTIVE: S- Ref 10566 - The Commission, therefore, directs the ERO to remove acceptance of risk language from the CIP Reliability Standards.

Para 150 (Related paragraphs: 151 thru 156)

"The Commission, therefore, directs the ERO to remove acceptance of risk language from the CIP Reliability Standards."

Assigned: Project 2008-06 - Cyber Security - Order 706

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10568 - The Commission directs the ERO to develop a set of conditions or criteria that a responsible entity must follow when relying on the technical feasibility exception contained in specific Requirements of the CIP Reliability Standards

Para 178 (Related paragraphs: 179 thru 186)

"directs the ERO to develop a set of conditions or criteria that a responsible entity must follow when relying on the technical feasibility exception contained in specific Requirements of the CIP Reliability Standards"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10853 - The Commission directs the ERO to develop a requirement that use of the technical feasibility exception by a responsible entity must be accompanied by a remediation plan and timeline for elimination the use of the technical feasibility exception.

Para 192

"With some minor refinements discussed below, the Commission adopts the CIP NOPR proposal for a three step structure to require accountability when a responsible entity relies on technical feasibility as the basis for an exception. We address mitigation and remediation in this section and direct the ERO to develop: (1) a requirement that the responsible entity must develop, document and implement a mitigation plan that achieves a comparable level of security to the Requirement; and (2) a requirement that use of the technical feasibility exception by a responsible entity must be accompanied by a remediation plan and timeline for elimination the use of the technical feasibility exception. While the CIP NOPR proposed that each remediation plan contain a reasonable completion date, the Commission is persuaded by the comments of National Grid and SPP that a date certain for remediation may not be possible in some instances. While we expect remediation by a date certain to be the norm, we will not require a date certain for remediation in every instance that a responsible entity invokes the technical feasibility exception. An entity must provide an explanation when it believes that it is not possible for a remediation plan to provide a reasonable completion date."

Not assigned to any project.

DIRECTIVE: S- Ref 10570 - The Commission directs the ERO to develop a requirement that the responsible entity must develop, document and implement a mitigation plan that achieves a comparable level of security to the Requirement.

Para 192

"the Commission adopts the CIP NOPR proposal for a three step structure to require accountability when a responsible entity relies on technical feasibility as the basis for an exception. We address mitigation and remediation in this section and direct the ERO to develop: (1) a requirement that the responsible entity must develop, document and implement a mitigation plan that achieves a comparable level of security to the Requirement; and (2) a requirement that use of the technical feasibility exception by a responsible entity must be accompanied by a remediation plan and timeline for elimination the use of the technical feasibility exception."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10571 - The Commission thus adopts its CIP NOPR proposal that use and implementation of technical feasibility exceptions must be governed by a clear set of criteria.

Para 209

"The Commission thus adopts its CIP NOPR proposal that use and implementation of technical feasibility exceptions must be governed by a clear set of criteria."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10449 - The Commission directs the ERO to include approval of the mitigation and remediation steps by the senior manager (identified pursuant to CIP-003-1) in the course of developing this framework of accountability.

Para 211

"direct the ERO to include approval of the mitigation and remediation steps by the senior manager (identified pursuant to CIP-003-1) in the course of developing this framework of accountability."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10572 - The Commission directs the ERO to design and conduct an approval process through the Regional Entities and the compliance audit process.

Para 218

"we direct the ERO to design and conduct an approval process through the Regional Entities and the compliance audit process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10573 - The Commission directs NERC, in developing the accountability structure for the technical feasibility exception, to include appropriate provisions to assure that governmental entities that are subject to Reliability Standards as users, owners or operators of the Bul

Para 219

"we direct NERC, in developing the accountability structure for the technical feasibility exception, to include appropriate provisions to assure that governmental entities that are subject to Reliability Standards as users, owners or operators of the Bulk-Power System can safeguard sensitive information."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10574 - The Commission directs the ERO to submit an annual report to the Commission that provides a wide-area analysis regarding use of the technical feasibility exception and the effect on Bulk-Power System reliability.

Para 220

"We direct the ERO to submit an annual report to the Commission that provides a wide-area analysis regarding use of the technical feasibility exception and the effect on Bulk-Power System reliability."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Annual TFE Report Filed

Status: Filed Delivery: 2011

Solution Details:

First report filed on 9/28/2011

DIRECTIVE: S- Ref 10575 - The Commission directs the ERO to control and protect the data analysis to the extent necessary to ensure that sensitive information is not jeopardized by the act of submitting the report to the Commission.

Para 221

"we direct the ERO to control and protect the data analysis to the extent necessary to ensure that sensitive information is not jeopardized by the act of submitting the report to the Commission."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10576 - The Commission directs the ERO to develop a set of criteria to provide accountability when a responsible entity relies on the technical feasibility exceptions in specific Requirements of the CIP Reliability Standards.

Para 222

"we direct the ERO to develop a set of criteria to provide accountability when a responsible entity relies on the technical feasibility exceptions in specific Requirements of the CIP Reliability Standards."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10793 - The Commission directs the ERO to consult with federal entities that are required to comply with both CIP Reliability Standards and NIST standards on the effectiveness of the NIST standards and on implementation issues and report these findings to the Commission.

Para 233 (Related paragraph: 25)

"Para 233

The Commission continues to believe and is further persuaded by the comments that NERC should monitor the development and implementation of the NIST standards to determine if they contain provisions that will protect the Bulk-Power System better than the CIP Reliability Standards. Moreover, we direct the ERO to consult with federal entities that are required to comply with both CIP Reliability Standards and NIST standards on the effectiveness of the NIST standards and on implementation issues and report these findings to the Commission. Consistent with the CIP NOPR, any provisions that will better protect the Bulk-Power System should be addressed in NERCs Reliability Standards development process. The Commission may revisit this issue in future proceedings as part of an evaluation of existing Reliability Standards or the need for new CIP Reliability Standards, or as part of an assessment of NERCs performance of its responsibilities as the ERO.

Para 25

The Commission believes that the NIST standards may provide valuable guidance when NERC develops future iterations of the CIP Reliability Standards. Thus, as discussed below, we direct NERC to address revisions to the CIP Reliability Standards CIP-002-1 through CIP-009-1 considering applicable features of the NIST framework. However, in response to Applied Control Solutions, we will not delay the effectiveness of the CIP Reliability Standards by directing the replacement of the current CIP Reliability Standards with others based on the NIST framework.

Not assigned to any project.

DIRECTIVE: S- Ref 10452 - The Commission leaves to the EROs discretion whether to incorporate guidance on the development of a risk-based assessment methodology to identify critical assets into the CIP Reliability Standard, develop it as a separate guidance document, or some combination of the two.

Para 253 (Related paragraph: 238)

"While we adopt our CIP NOPR proposal, we recognize that the ERO has already initiated a process to develop such guidance leave to the EROs discretion whether to incorporate such guidance into the CIP Reliability Standard, develop it as a separate guidance document, or some combination of the two."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009
Solution Details:
TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10453 - The Commission directs the ERO to consider commenter concerns such as how to assess whether a generator or a blackstart unit is critical to Bulk-Power System reliability, the proper quantification of risk and frequency, facilities that are relied on to operate or shut down nuclear generating stations, and the consequences of asset failure and asset misuse by an adversary.

Para 254

"Direct the ERO to consider these commenter concerns [how to assess whether a generator or a blackstart unit is critical to Bulk-Power System reliability, the proper quantification of risk and frequency, facilities that are relied on to operate or shut down nuclear generating stations, and the consequences of asset failure and asset misuse by an adversary] when developing the guidance."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10454 - The Commission directs either the ERO or its designees to provide reasonable technical support to assist entities in determining whether their assets are critical to the Bulk-Power System.

Para 255

"We direct either the ERO or its designees to provide reasonable technical support to assist entities in determining whether their assets are critical to the Bulk-Power System."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Need RE input regarding technical support provided.

Status: Filed Delivery: 2011

Solution Details:

Need RE input regarding technical support provided.

DIRECTIVE: S- Ref 10456 - We direct the ERO to consider this clarification [the meaning of the phrase used for initial system restoration, in CIP-002-1, Requirement R1.2.4] in its Reliability Standards development process.

Para 257 (Related paragraph: 250)

"Para 257

With regard to Xcel's request for clarification regarding the meaning of the phrase used for initial system restoration, in CIP-002-1, Requirement R1.2.4, we direct the ERO to consider this clarification in its Reliability Standards development process.

Para 250

Xcel seeks clarification of CIP-002-1, Requirement R1.2.4, which provides that a risk-based assessment methodology consider systems and facilities critical to system restoration, including blackstart generators and substations in the electrical path of transmission lines used for initial system restoration. Xcel asks that either the Commission clarify or direct NERC to clarify the meaning of the phrase used for initial system restoration and specify whether it refers to facilities on the primary transmission restoration path or on all potential alternative transmission restoration paths.

"

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10458 - The ERO should consider Northern California's suggestion that the ERO establish a process for informal, case-by-case consultations with responsible entities that need assistance in complying with CIP-002-1 (in developing policies and procedures).

Para 258 and 249

"Para 258. . Likewise, the ERO should consider Northern California's suggestion that the ERO establish a formal feedback loop to assist the industry in developing policies and procedures.

Para 249. In contrast, FirstEnergy agrees that NERC should provide guidance to entities without a wide-area view, such as a generation owner or a partial generation owner, on how to approach a risk-based assessment. Likewise, Northern California suggests that NERC establish a process for informal, case-by-case consultations with responsible entities that need assistance in complying with CIP-002-1. In addition, as part of the re-examination of CIP-002-1, Northern California encourages the incorporation of a formalized feedback loop to assist the industry in developing policies and procedures.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10457 - The ERO should consider the issue of a Design-Basis Threat (DBT) profile of potential adversaries as an alternative approach to critical asset identification.

Para 258 and 252

"Para 258. As to Entergy's suggestion that the ERO provide a DBT profile of potential adversaries, the ERO should consider this issue in the Reliability Standards development process.

Para 252. Entergy suggests, as an alternative approach to critical asset identification, that the ERO provide a Design-Basis Threat (DBT) a profile of the type, composition, and capabilities of an adversary that would assist the industry as a technical baseline against which to establish the proper designs, controls and processes. Entergy claims that a DBT approach would address many of the Commission's concerns regarding the risk-based methodology. For example, a DBT would focus the appropriate emphasis on the potential consequences from an outage of a critical asset. In addition, a DBT would address the Commission's concern that responsible entities will not have enough guidance in developing a risk-based methodology and not know how to identify a critical asset. Entergy contends that a DBT approach would provide the industry with more certainty in implementing the CIP Reliability Standards.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10577 - The Commission directs the ERO, in developing the guidance discussed above regarding the identification of critical assets, to consider the designation of various types of data as a critical asset or critical cyber asset.

Para 272

"The Commission directs the ERO, in developing the guidance discussed above regarding the identification of critical assets, to consider the designation of various types of data as a critical asset or critical cyber asset."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Because data is largely not addressed in the Versions 1, 2, or proposed Version 3 of the CIP standards, it was not appropriate to provide guidance in the document.

Status: *In Drafting*

Solution Details:

Because data is largely not addressed in the Versions 1, 2, or proposed Version 3 of the CIP standards, it was not appropriate to provide guidance in the document.

DIRECTIVE: S- Ref 10578 - The Commission directs the ERO to develop guidance on the steps that would be required to apply the CIP Reliability Standards to such data and to consider whether this also covers the computer systems that produce the data.

Para 272

"The Commission directs the ERO to develop guidance on the steps that would be required to apply the CIP Reliability Standards to such data and to consider whether this also covers the computer systems that produce the data."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Because data is largely not addressed in the Versions 1, 2, or proposed Version 3 of the CIP standards, it was not appropriate to provide guidance in the document.

Status: In Drafting

Solution Details:

Because data is largely not addressed in the Versions 1, 2, or proposed Version 3 of the CIP standards, it was not appropriate to provide guidance in the document.

DIRECTIVE: S- Ref 10459 - The Commission directs the ERO to specifically require the consideration of misuse of control centers and control systems in the determination of critical assets.

Para 282 (Related paragraphs: 279 thru 281) (See also Sept 2004 NOPR on CIP version 4 paragraphs 54 thru 58)

"282. Therefore, consistent with the discussion above, the Commission directs the ERO, through the Reliability Standards development process, to specifically require the consideration of misuse of control centers and control systems in the determination of critical assets. The clarification of our concern over misuse of control systems addresses Entergy's comment on this issue as well."

Assigned: Project Standards Internal - For directives unrelated to specific standards

CIPC approved 9/2009 SC approved 11/2009

Status: Filed Delivery: 2009

Solution Details:

CIPC approved 9/2009

SC approved 11/2009

DIRECTIVE: S- Ref 10794 - The Commission directs the ERO to consider the comment from ISA99 Team [ISA99 Team objects to the exclusion of communications links from CIP-002-1 and non-routable protocols from critical cyber assets, arguing that both are key elements of associated control systems

Due 6/29/2012

Para 285 (Related paragraph: 278)

"Para 285

As to the conflicting comments of ISA99 Team and Energy Producers, Requirement R2 of CIP-002-1 provides that a critical cyber asset must either have routable protocols or dial-up access. Energy Producers argues that Requirement R2 should be retained, while ISA99 Team argues that devices that use non-routable protocols should also be considered as possible critical cyber assets. We do not find sufficient justification to remove this provision at this time. However, we direct the ERO to consider the comment from ISA99 Team. We also do not find sufficient justification to order the inclusion of communication links in CIP-002-1 at this time.

Para 278

ISA99 Team objects to the exclusion of communications links from CIP-002-1 and non-routable protocols from critical cyber assets, arguing that both are key elements of associated control systems, essential to proper operation of the critical cyber assets, and have been shown to be vulnerable by testing and experience. In contrast, Energy Producers notes that CIP-002-1 as

proposed by NERC provides that a critical cyber asset must have either routable protocols or a dial-up connection. Energy Producers states that this is a useful, objective criterion which will assist in the unambiguous identification of such assets and therefore should be retained.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10579 - The Commission adopts its CIP NOPR proposal and directs the ERO to develop, pursuant to its Reliability Standards development process, a modification to CIP-002-1 to explicitly require that a senior manager annually review and approve the risk-based ass

Para 294 (Related paragraphs: 296 thru 291)

"The Commission adopts its CIP NOPR proposal and directs the ERO to develop, pursuant to its Reliability Standards development process, a modification to CIP-002-1 to explicitly require that a senior manager annually review and approve the risk-based assessment methodology."

Assigned: Project 2008-06 - Cyber Security - Order 706

CIPC approved 9/2009 SC approved 11/2009

Status: *Filed* Delivery: 2009

Solution Details:

CIPC approved 9/2009

SC approved 11/2009

DIRECTIVE: S- Ref 10849 - The ERO should consider the suggestion that the CIP Reliability Standards require oversight by a corporate officer (or the equivalent, since some entities do not have corporate officers) rather than by a senior manager.

Para 296 (Related paragraphs: 289 thru 293)

"With regard to METC-ITCs comment, the ERO should consider in its Reliability Standards development process the suggestion that the CIP Reliability Standards require oversight by a corporate officer (or the equivalent, since some entities do not have corporate officers) rather than by a senior manager."

Not assigned to any project.

DIRECTIVE: S- Ref 10462 - The ERO should consider modifying CIP-002-1 to allow an entity to rely upon the assessment of another entity with interest in the matter.

Para 321

"Para 321. SPP and ReliabilityFirst suggest modifying CIP-002-1 to allow an entity to rely upon the assessment of another entity with interest in the matter. We believe that this is a worthwhile suggestion for the ERO to pursue and the ERO should consider this proposal in the Reliability Standards development process. We note that, even without such a provision, an entity such as a small generator operator is not foreclosed from consulting with a balancing authority or other appropriate entity with a wide-area view of the transmission system."

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10795 - The Commission adopts its CIP NOPR proposal to direct that the ERO develop through its Reliability Standards development process a mechanism for external review and approval of critical asset lists.

Para 322 (Related paragraphs: 323 thru 325)

"Para 322 thru 325

The Commission adopts its CIP NOPR proposal to direct that the ERO develop through its Reliability Standards development process a mechanism for external review and approval of critical asset lists. The Commission finds that an external review of critical assets by an appropriate organization is needed to assure that such lists are considered from a wide-area view (i.e., from a regional perspective) and to identify trends in critical asset identification. Further, while we recognize that individual circumstances may likely vary, an external review will provide an appropriate level of consistency.

The Commission disagrees with the suggestion of Luminant and others that external review should be voluntary. The identification of critical assets pursuant to CIP-002-1 is crucial to cyber security protection because this determination controls whether a responsible entity must comply with the remaining CIP requirements in CIP-003-1 through CIP-009-1. External review will help ensure that responsible entities have an accurate and complete list of critical assets, which will in turn allow them to be appropriately protected to further the security of the nations Bulk-Power System. Allowing external review as a voluntary measure is not adequate to ensure that responsible entities are prepared to address cyber vulnerabilities and cyber threats. Based on the same reasoning, we reject the suggestion of Northern Indiana and others that the external review should only address the assessment methodology, and not critical asset lists.

The Commission also disagrees with commenters who insist that the external review can be performed pursuant to the EROs and Regional Entities current compliance and enforcement programs, and the audit process in particular. While the Commission decided earlier in the Final Rule to rely on the ERO and regional audit processes to examine exceptions to compliance based on technical feasibility, the Commission does not believe that the audit process will provide timely feedback to a responsible entity regarding critical asset determinations. Review of critical asset lists through individual audits would span a significant period of time, measured in years, during which time such lists would not undergo review and possibly gaps in security could result. While EEIs suggestion of spot checks prior to the auditably compliant stage would provide more timely feedback it would, by design, not be comprehensive. The Commission concludes that a structured program for the formal, timely review of critical assets lists is a reasonable means to provide timely, comprehensive guidance to responsible entities on the adequacy of their critical asset lists.

The Commission agrees with Ontario IESO that in a dispute between a responsible entity and the external reviewer over whether to identify an additional asset as critical, the external reviewer should prevail. (However, an external reviewers role should be limited to determining if additional assets should be added, and should not include making recommendations to remove an asset from the list of critical assets.) We recognize, however, that there may be a legitimate reason for a responsible entity to dispute such a determination, possibly through an appeal. We leave it to the ERO to determine the need for such an appeal mechanism and, if appropriate, the development of appropriate procedures (or reliance on appeal procedures currently provided in the NERC Rules of Procedure). While the ERO may determine that an appeals process is a necessary aspect of this program, we do not believe that the burden of such appeals outweighs the benefits of the external review of critical asset lists.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 4 filing

Status: Filed Delivery: 2011

Solution Details:

Version 4 methodology obviates the need for external review

DIRECTIVE: S- Ref 10796 - The Commission directs the ERO, using its Reliability Standards development process, to develop a process of external review and approval of critical asset lists based on a regional perspective.

Para 329 (Related paragraphs 327 thru 328)

"Para 327 thru 329

The Commission believes that the Regional Entities must have a role in the external review to assure that there is sufficient accountability in the process. Further, a Regional Entity role is necessary because the Regional Entities and ERO are ultimately responsible for ensuring compliance with Reliability Standards. For example, if the ERO determines that an appeals process is needed, this process cannot rest with an active owner or operator of the Bulk-Power System such as a reliability coordinator. Moreover, the ERO and the Commission have oversight authority of the Regional Entities programs and procedures pursuant to section 215 of the FPA.

Beyond the direction that the Regional Entities maintain a role in the external review to process to assure that there is sufficient accountability, we leave to the ERO to determine whether the Regional Entities have, or can timely develop, the resources to conduct the external reviews. (The Commission does not believe that Regional Entity review creates a conflict of interest as claimed by some commenters because the Regional Entity has no pecuniary interest. The mere fact that a Regional Entity performs a development and compliance role is not a sufficient reason to find a conflict of interest.) Alternatively, the ERO may determine that another entity such as reliability coordinators may be best equipped to conduct the reviews. While commenters have made what the Commission believes to be a strong case that reliability coordinators are the appropriate entity to perform the reviews, the ERO should decide the best approach with its understanding of the capabilities and limitations of the Regional Entities. Regardless of this determination, however, the Commission notes that the Regional Entities have the oversight responsibility. (The Commission notes that general reliance on Regional Entity oversight does not preclude the Commission, the ERO or a Regional Entity from exercising its authority to review critical asset lists, whether resulting from a complaint, an incident or on its own initiative.)

Based on the above discussion, the Commission directs the ERO, using its Reliability Standards development process, to develop a process of external review and approval of critical asset lists based"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 4 filing

Status: Filed Delivery: 2011

Solution Details:

Version 4 methodology obviates the need for external review

DIRECTIVE: S- Ref 10467 - The Commission directs the ERO, in developing the accountability structure for the technical feasibility exception, to include appropriate provisions to assure that governmental entities can safeguard sensitive information.

Para 333

"we direct the ERO, in developing the accountability structure for the technical feasibility exception, to include appropriate provisions to assure that governmental entities can safeguard sensitive information"

Assigned: Project Standards Internal - For directives unrelated to specific standards

CIPC approved 9/2009 SC approved 11/2009 The document does address the topic of misuse to a limited extent.

Status: Filed Delivery: 2009

Solution Details:

CIPC approved 9/2009

SC approved 11/2009

The document does address the topic of misuse to a limited extent.

DIRECTIVE: S- Ref 10468 - The Commission directs the ERO to provide additional guidance for the topics and processes that the required cyber security policy should address in the cyber security policy required pursuant to CIP-003-1

Para 355 (Related paragraph 356)
"Para 355 thru 356

The Commission believes that responsible entities would benefit from additional guidance regarding the topics and processes to address in the cyber security policy required pursuant to CIP-003-1. While commenters support the need for guidance, many are concerned about providing such guidance through a modification of the Reliability Standard. We are persuaded by these commenters. Accordingly, the Commission directs the ERO to provide additional guidance for the topics and processes that the required cyber security policy should address. However, we will not dictate the form of such guidance. For example, the ERO could develop a guidance document or white paper that would be referenced in the Reliability Standard. On the other hand, if it is determined in the course of the Reliability Standards development process that specific guidance is important enough to be incorporated directly into a Requirement, this option is not foreclosed. The entities remain responsible, however, to comply with the cyber security policy pursuant to CIP-003-1.

In response to ISO/RTO Council, Ontario Power and other commenters, the Commission's intent in the CIP NOPR as well as the Final Rule is not to expand the scope of the CIP Reliability Standards. Requirement R1 of CIP-003-1 requires a responsible entity to document and implement a cyber security policy that represents management's commitment and ability to secure its Critical Cyber Assets. The Requirement then states that the policy, at a minimum, must address the Requirements in CIP-002-1 through CIP-009-1. The Commission believes that there are other topics, besides those addressed in the Requirements of the CIP Reliability Standards, which are relevant to securing critical cyber assets. The Commission identified examples of such topics in the CIP NOPR. Thus, the Commission, in directing the ERO to develop guidance on additional topics relevant to securing critical cyber assets, is not expanding the scope of the CIP Reliability Standards.

Assigned: Project Standards Internal - For directives unrelated to specific standards

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: In Drafting

Solution Details:

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

DIRECTIVE: S- Ref 10797 - The Commission adopts its CIP NOPR proposal and directs the ERO to clarify that the exceptions mentioned in Requirements R2.3 and R3 of CIP-003-1 do not exempt responsible entities from the Requirements of the CIP Reliability Standards.

Due 6/29/2012

Para 376

"376. Further, the Commission adopts its CIP NOPR proposal and directs the ERO to clarify that the exceptions mentioned in Requirements R2.3 and R3 of CIP-003-1 do not exempt responsible entities from the Requirements of the CIP Reliability Standards. In response to EEI, we believe that this clarification is needed because, for example, it is important that a responsible entity understand that exceptions that individually may be acceptable must not lead cumulatively to results that undermine compliance with the Requirements themselves."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10580 - The Commission adopts its CIP NOPR interpretation that Requirement R2 of CIP-003-1 requires the designation of a single manager who has direct and comprehensive responsibility and accountability for implementation and ongoing compliance with the CIP Rel

Para 381 (Realted paragraph: 379)

"Para 381

The Commission adopts its CIP NOPR interpretation that Requirement R2 of CIP-003-1 requires the designation of a single manager who has direct and comprehensive responsibility and accountability for implementation and ongoing compliance with the CIP Reliability Standards. The Commissions intent is to ensure that there is a clear line of authority and that cyber security functions are given the prominence they deserve. The Commission agrees with commenters that the senior manager, by virtue of his or her position, is not a user, owner or operator of the Bulk-Power System that is personally subject to civil penalties pursuant to section 215 of FPA.

Para 379

Requirement R2 of CIP-003-1 requires that a senior manager be assigned overall responsibility for implementation of the CIP Reliability Standards. In the CIP NOPR, the Commission interpreted this Requirement to require the designation of a single manager who has direct and comprehensive responsibility and accountability for implementation and ongoing compliance with the CIP Reliability Standards (See CIP NOPR at P 134-36). The Commission noted that Recommendation 43 of the Blackout Report called for clear lines of authority and ownership for security matters, and it proposed to direct that the ERO modify CIP-003-1 to make clear the senior managers ultimate responsibility.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10798 - The Commission adopts its CIP NOPR proposal and directs the ERO to develop modifications to Reliability Standards CIP-003-1, CIP-004-1, and/or CIP-007-1, to ensure and make clear that, when access to protected information is revoked, it is done so promp

Due 6/29/2012

Para 386

"The Commission adopts its CIP NOPR proposal and directs the ERO to develop modifications to Reliability Standards CIP-003-1, CIP-004-1, and/or CIP-007-1, to ensure and make clear that, when access to protected information is revoked, it is done so promptly."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10474 - The Commission directs the ERO to develop modifications to Requirement R6 of CIP-003-1 to provide an express acknowledgment of the need for the change control and configuration management process to consider accidental consequences and malicious actions along with intentional changes.

Due 6/29/2012

Para 397 and 398

"Para 397 thru 398

Based upon the comments received the Commission is altering its position on how best to address the apparent deficiencies of Requirement R6 in CIP-003-1. The Commission directs the ERO to develop modifications to Requirement R6 of CIP-003-1 to provide an express acknowledgment of the need for the change control and configuration management process to consider accidental consequences and malicious actions along with intentional changes. The Commission believes that these considerations are significant aspects of change control and configuration management that deserve express acknowledgement in the Reliability Standard. While we agree with Entergy that the NIST Security Risk Management Framework offers valuable guidance on how to deal with these matters, our concern here is that the potential problems alluded to be explicitly acknowledged. Our proposal does not speak to how these problems should be addressed. We do not believe that the changes will have burdensome consequences, but we also note that addressing any unnecessary burdens can be dealt with in the Reliability Standards development process.

We agree with ISO/RTO Council that the phrase verification that unintended changes have not been made captures the core issue. Our concern is that some form of verification is performed to detect when unauthorized changes have been made and to identify those changes, as well as ensuring that the proper alerts are issued.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10581 - The Commission therefore directs the ERO to provide guidance, regarding the issues and concerns that a mutual distrust posture must address in order to protect a responsible entity's control system from the outside world.

Para 412 (Related paragraphs: 408 thru 410) (Also see footnote 24 found in paragraph 24)

"The Commission therefore directs the ERO to provide guidance, regarding the issues and concerns that a mutual distrust posture must address in order to protect a responsible entity's control system from the outside world."

Assigned: Project Standards Internal - For directives unrelated to specific standards

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: *In Drafting*

Solution Details:

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

DIRECTIVE: S- Ref 10582 - The Commission adopts the CIP NOPRs proposal and directs the ERO to develop a modification to CIP-004-1 that would require affected personnel to receive required training before obtaining access to critical cyber assets (rather than within 90 days of ac

Para 431

"The Commission adopts the CIP NOPRs proposal and directs the ERO to develop a modification to CIP-004-1 that would require affected personnel to receive required training before obtaining access to critical cyber assets (rather than within 90 days of access authorization), but allowing limited exceptions, such as during emergencies, subject to documentation and mitigation."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved

Status: *Filed* Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10799 - We direct the ERO to consider, in developing modifications to CIP-004-1, whether identification of core training elements would be beneficial and, if so, develop an appropriate modification to the Reliability Standard.

Due 6/29/2012

Para 433

"We direct the ERO to consider, in developing modifications to CIP-004-1, whether identification of core training elements would be beneficial and, if so, develop an appropriate modification to the Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10800 - The Commission adopts the CIP NOPRs proposal to direct the ERO to modify Requirement R2 of CIP-004-1 to clarify that cyber security training programs are intended to encompass training on the networking hardware and software and other issues of electron

Due 6/29/2012

Para 434

"The Commission adopts the CIP NOPRs proposal to direct the ERO to modify Requirement R2 of CIP-004-1 to clarify that cyber security training programs are intended to encompass training on the networking hardware and software and other issues of electronic interconnectivity supporting the operation and control of critical cyber assets."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10801 - Consistent with the CIP NOPR, the Commission directs the ERO to determine what, if any, modifications to CIP-004-1 should be made to assure that security trainers are adequately trained themselves.

Due 6/29/2012

Para 435

"Consistent with the CIP NOPR, the Commission directs the ERO to determine what, if any, modifications to CIP-004-1 should be made to assure that security trainers are adequately trained themselves."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10850 The Commission directs the ERO to modify Requirement R3 of CIP-004-1 to provide that newly-hired personnel and vendors should not have access to critical cyber assets prior to the satisfactory completion of a personnel risk assessment, except in specified circumstances such as an emergency.

Para 443

"The Commission adopts with modifications the proposal to direct the ERO to modify Requirement R3 of CIP-004-1 to provide that newly-hired personnel and vendors should not have access to critical cyber assets prior to the satisfactory completion of a personnel risk assessment, except in specified circumstances such as an emergency. We also direct the ERO to identify the parameters of such exceptional circumstances through the Reliability Standards development process. FirstEnergy and California Commission agree with the Commissions proposals."

Not assigned to any project.

DIRECTIVE: S- Ref 10481 - We also direct the ERO to identify the parameters of such exceptional circumstances through the Reliability Standards development process

Para 443

"The Commission adopts with modifications the proposal to direct the ERO to modify Requirement R3 of CIP-004-1 to provide that newly-hired personnel and vendors should not have access to critical cyber assets prior to the satisfactory completion of a personnel risk assessment, except in specified circumstances such as an emergency."

Assigned: Project 2008-06 - Cyber Security - Order 706

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

DIRECTIVE: S- Ref 10483 - The ERO should consider the comments of APPA/LPPC (seeking clarification regarding discretion in reviewing results of personnel risk assessments and in coming to conclusions regarding the subject employees) and SDG&E (seeking refinements on various issues, including an industry-wide protocol for periodic background and criminal checks, and the use of pre-employment background check procedures for current employees) when developing modifications to CIP-004-1.

Para 446 (Related paragraphs 441 and 442)

"Para 446

APPA/LPPC seek clarification regarding discretion in reviewing results of personnel risk assessments and in coming to conclusions regarding the subject employees. SDG&E seeks refinements on various issues, including an industry-wide protocol for periodic background and criminal checks, and the use of pre-employment background check procedures for current employees. The ERO should consider these issues when developing modifications to CIP-004-1 pursuant to the Reliability Standards development process.

Para 441 and 442

APPA/LPPC note that they do not object to the requirement in CIP-004-1 R3.1 that [t]he responsible entity shall ensure that each assessment conducted include, at least,[a] seven-year criminal check on employees with access to critical cyber assets. However, they seek clarification that responsible entities have discretion in reviewing the results of criminal background checks to determine, on a case-by-case basis, whether any crime identified in the background check would disqualify an individual from obtaining access to critical cyber assets.

SDG&E comments that Requirement R3 may require refinement on various issues regarding the personnel risk assessment requirements, including whether state and local law should be preempted to permit industry-wide protocols for periodic background and criminal checks on existing employees. SDG&E asks the Commission to clarify that an entity may comply with Requirement R3 by using its existing pre-employment background check procedures for current employees, at seven year intervals, provided that such procedures encompass the required social security verification and criminal background checks. SDG&E argues that, otherwise, applicable state and local laws could prohibit an entity from conducting such periodic checks.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: In Drafting Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10802 - The Commission adopts the CIP NOPR proposal to direct the ERO to develop modifications to CIP-004-1 to require immediate revocation of access privileges when an employee, contractor or vendor no longer performs a function that requires physical or elect

Due 6/29/2012

Para 460

"The Commission adopts the CIP NOPR proposal to direct the ERO to develop modifications to CIP-004-1 to require immediate revocation of access privileges when an employee, contractor or vendor no longer performs a function that requires physical or electronic access to a critical cyber asset for any reason (including disciplinary action, transfer, retirement, or termination)."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10803 - We also adopt our proposal to direct the ERO to modify Requirement R4 to make clear that unescorted physical access should be denied to individuals that are not identified on the authorization list, with clarification.

Due 6/29/2012

Para 464

"We also adopt our proposal to direct the ERO to modify Requirement R4 to make clear that unescorted physical access should be denied to individuals that are not identified on the authorization list, with clarification."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10804 - The ERO should consider the suggestions raised by Northern Indiana, SPP and NRECA in the Reliability Standards development process.

Para 475 (Related paragraphs: 470 thru 472)

"Para 475

The ERO should consider the suggestions raised by Northern Indiana, SPP and NRECA in the Reliability Standards development process.

Para 470 thru 472

Northern Indiana is concerned that the Commissions proposal means that a responsible entity must perform risk assessments of the other owners personnel so that such personnel may access a facility that the responsible entity has identified as a critical cyber asset. Northern Indiana argues that such a broad application of the CIP Reliability Standards was never intended and requests that the Commission clarify this point. Northern Indiana sees a conflict with respect to sharing information with other entities that jointly own or jointly use transmission facilities if it is required to maintain a mutual distrust posture. Northern Indiana urges the Commission to provide for flexibility when applying the CIP Reliability Standards to such jointly owned facilities.

SPP believes that jointly operated assets may require contractual agreements to assign responsibility and liability for compliance with the CIP Reliability Standards, similar to the Commissions concern with respect to out-sourced service providers in the CIP NOPR. It is unclear to SPP whether the Commissions recommendations adequately cover the situation where each party is uniquely responsible for a subset of the requirements of the CIP Reliability Standards. For example, one entity may place critical cyber assets within a facility managed by a

second entity. The second entity would be fully responsible for the physical security requirements of CIP-006-1, while the first entity would be fully responsible for the system management requirements of CIP-007-1 only for their own assets. A contractual agreement between the two entities should be in place to codify the second entity's physical security responsibilities and, as with out-sourced services, to absolve the first entity of any responsibility for CIP-006-1 beyond ensuring that the cyber assets are within the second entity's physical security perimeter. SPP recommends that the Commission direct the ERO to include recognition of such contractual agreements in its auditing and sanctioning processes.

NRECA is concerned that the Commission's joint use proposal would cause problems for small entities. NRECA also raises concerns about how disputes regarding joint use facilities will be addressed.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

DIRECTIVE: S- Ref 10805 - We direct the ERO to modify CIP-004-1, and other CIP Reliability Standards as appropriate, through the Reliability Standards development process to address critical cyber assets that are jointly owned or jointly used, consistent with the Commission's determination.

Due 6/29/2012

Para 476 (Related paragraphs: 473 and 466 thru 468)

"We direct the ERO to modify CIP-004-1, and other CIP Reliability Standards as appropriate, through the Reliability Standards development process to address critical cyber assets that are jointly owned or jointly used, consistent with the Commission's determinations above."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10492 - The Commission adopts the CIP NOPRs proposal to direct the ERO to develop a requirement that each responsible entity must implement a defensive security approach including two or more defensive measures in a defense in depth posture when constructing an electronic security perimeter

Due 6/29/2012

Para 496 (Related Paragraph: 503)

"Para 496

The Commission adopts the CIP NOPRs proposal to direct the ERO to develop a requirement that each responsible entity must implement a defensive security approach including two or more defensive measures in a defense in depth posture when constructing an electronic security perimeter. However, in light of the comments received, the Commission understands that there may be instances in which certain facilities cannot implement defense in depth or where such an approach would harm reliability rather than enhance it. For that reason, the Commission believes that it is appropriate to allow the ERO and the Regional Entities to grant exceptions based on the technical feasibility of implementing defense in depth, consistent with the Commission's determination on technical feasibility above. However, the responsible entity should implement electronic defense in depth measures or justify why it is not doing so pursuant to our discussion of technical feasibility exceptions.

Para 503

In response to Manitobas concern that the proposed additional security measure could delay implementation of the more important requirement of an electronic perimeter for all critical cyber assets, the Commission notes that this Final Rule approves the Reliability Standard as filed by the ERO. The Commission is directing the ERO to revise the Reliability Standard to require two or more defensive measures. Until that Reliability Standard is developed by the ERO and

approved by the Commission, responsible entities in the United States will not be required to implement two or more defensive measures.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10493 - The Commission directs that a responsible entity must implement two or more distinct security measures when constructing an electronic security perimeter, the specific requirements should be developed in the Reliability Standards development process.

Due 6/29/2012

Para 502

"The Commission directs that a responsible entity must implement two or more distinct security measures when constructing an electronic security perimeter, the specific requirements should be developed in the Reliability Standards development process."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10852 - The ERO should consider Northern Indianas and Xcels concerns regarding the phrase single access point at the dial up device.

Para 504 (Related paragraph: 495)

"Para 504

The ERO should consider in the Reliability Standards development process Northern Indianas and Xcels concerns regarding the phrase single access point at the dial up device.

Para 495

Northern Indiana and Xcel ask the Commission to clarify or direct the ERO to clarify the phrase single access point at the dial up device in CIP-005-1, Requirement R1.2. Xcel asks whether this refers to the initiating device, the device at the point of termination, or both. Northern Indiana would not modify CIP-005-1, but urges that any modifications to Requirement R2 should allow continued reliance on legacy systems.

"

Not assigned to any project.

DIRECTIVE: S- Ref 10806 - The Commission adopts the CIP NOPRs proposal to direct the ERO to identify examples of specific verification technologies that would satisfy Requirement R2.4, while also allowing compliance pursuant to other technically equivalent measures or technologi

Due 6/29/2012

Para 511

"The Commission adopts the CIP NOPRs proposal to direct the ERO to identify examples of specific verification technologies that would satisfy Requirement R2.4, while also allowing compliance pursuant to other technically equivalent measures or technologies."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10807 - The Commission adopts the CIP NOPR proposal to require the ERO to modify CIP-005-1 to require logs to be reviewed more frequently than 90 days

Due 6/29/2012

Para 525

"The Commission adopts the CIP NOPR proposal to require the ERO to modify CIP-005-1 to require logs to be reviewed more frequently than 90 days"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10809 - The Commission directs the ERO to modify CIP-005-1 to require some manual review of logs, consistent with our discussion of log sampling below, to improve automated detection settings, even if alerts are employed on the logs.

Due 6/29/2012

Para 526

"The Commission directs the ERO to modify CIP-005-1 to require some manual review of logs, consistent with our discussion of log sampling below, to improve automated detection settings, even if alerts are employed on the logs."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10808 - The Commission directs the ERO to modify CIP-005-1 through the Reliability Standards development process to require manual review of those logs without alerts in shorter than 90 day increments.

Due 6/29/2012

Para 526

"the Commission directs the ERO to modify CIP-005-1 through the Reliability Standards development process to require manual review of those logs without alerts in shorter than 90 day increments."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10810 - The Commission clarifies its direction with regard to reviewing logs. In directing manual log review, the Commission does not require that every log be reviewed in its entirety. Instead, the ERO could provide, through the Reliability Standards development process, clarification that a responsible entity should perform the manual review of a sampling of log entries or sorted or filtered logs."

Due 6/29/2012

Para 528

"the Commission clarifies its direction with regard to reviewing logs. In directing manual log review, the Commission does not require that every log be reviewed in its entirety. Instead, the ERO could provide, through the Reliability Standards development process, clarification that a responsible entity should perform the manual review of a sampling of log entries or sorted or filtered logs."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10811 - We adopt the EROs proposal to provide for active vulnerability assessments rather than full live vulnerability assessments.

Due 6/29/2012

Para 541

"We adopt the EROs proposal to provide for active vulnerability assessments rather than full live vulnerability assessments."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10812 - The Commission adopts the EROs recommendation of requiring active vulnerability assessments of test systems.

Due 6/29/2012

Para 542

"the Commission adopts the EROs recommendation of requiring active vulnerability assessments of test systems."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10813 - The Commission directs the ERO to revise the Reliability Standard so that annual vulnerability assessments are sufficient, unless a significant change is made to the electronic security perimeter or defense in depth measure, rather than with every modification.

Due 6/29/2012

Para 544

"the Commission directs the ERO to revise the Reliability Standard so that annual vulnerability assessments are sufficient, unless a significant change is made to the electronic security perimeter or defense in depth measure, rather than with every modification."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10814 - The Commission directs the ERO to determine, through the Reliability Standards development process, what would constitute a modification that would require an active vulnerability assessment

Due 6/29/2012

Para 544

"we are directing the ERO to determine, through the Reliability Standards development process, what would constitute a modification that would require an active vulnerability assessment"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10513 - we direct the ERO to modify Requirement R4 to require these representative active vulnerability assessments at least once every three years, with subsequent annual paper assessments in the intervening years

Due 6/29/2012

Para 547

"we direct the ERO to modify Requirement R4 to require these representative active vulnerability assessments at least once every three years, with subsequent annual paper assessments in the intervening years"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10583 - the Commission directs the ERO to treat any alternative measures for Requirement R1.1 of CIP-006-1 as a technical feasibility exception to Requirement R1.1, subject to the conditions on technical feasibility exceptions.

Para 560

"the Commission directs the ERO to treat any alternative measures for Requirement R1.1 of CIP-006-1 as a technical feasibility exception to Requirement R1.1, subject to the conditions on technical feasibility exceptions."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: *Filed* Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10514 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify this CIP Reliability Standard to state that a responsible entity must, at a minimum, implement two or more different security procedures when establishing a physical security perimeter around critical cyber assets.

Para 572

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify this CIP Reliability Standard to state that a responsible entity must, at a minimum, implement two or more different security procedures when establishing a physical security perimeter around critical cyber assets."

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10515 - The Commission directs the ERO to consider, based on the content of the modified CIP-006-1, whether further guidance on defense in depth (a responsible entity must implement two or more distinct and complimentary physical access controls at a physical access point of the perimeter) should be developed in a reference document outside of the Reliability Standards.

Para 575

"The Commission also directs the ERO to consider, based on the content of the modified CIP-006-1, whether further guidance on this defense in depth topic should be developed in a reference document outside of the Reliability Standards."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10815 - The Commission adopts the CIP NOPR proposal and directs the ERO to develop a modification to CIP-006-1 to require a responsible entity to test the physical security measures on critical cyber assets more frequently than every three years,

Para 581

"The Commission adopts the CIP NOPR proposal and directs the ERO to develop a modification to CIP-006-1 to require a responsible entity to test the physical security measures on critical cyber assets more frequently than every three years,"

Assigned: Project 2008-06 - Cyber Security - Order 706

Solution in drafting
Status: *In Drafting* Delivery: 2010
Solution Details:
Solution in drafting

DIRECTIVE: S- Ref 10584 - Therefore, the Commission directs the ERO to eliminate the acceptance of risk language from Requirements R2.3 and R3.2.

Para 597

"Therefore, the Commission directs the ERO to eliminate the acceptance of risk language from Requirements R2.3 and R3.2."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved
Status: *Filed* Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10585 - Commission therefore directs the ERO to revise Requirement R3 to remove the acceptance of risk language and to impose the same conditions and reporting requirements as imposed elsewhere in the Final Rule regarding technical feasibility.

Para 600

"Commission therefore directs the ERO to revise Requirement R3 to remove the acceptance of risk language and to impose the same conditions and reporting requirements as imposed elsewhere in the Final Rule regarding technical feasibility."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved
Status: *Filed* Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10816 - The Commission directs the ERO to develop requirements addressing what constitutes a representative system and to modify CIP-007-1 accordingly.

Due 6/29/2012

Para 609 Sen 5

"The Commission has discussed issues related to testing environments in CIP-005-1. In that context, the Commission clarifies the CIP NOPR proposal to require differences between the test environment and the production system to be documented. As stated with respect to CIP-005-1, the Commission understands that test systems do not need to exactly match or mirror the production system in order to provide useful test results. However, to perform active testing, the responsible entities should be required at a minimum to create a representative system one that includes the essential equipment and adequately represents the functioning of the production system. We therefore direct the ERO to develop requirements addressing what constitutes a representative system and to modify CIP-007-1 accordingly. The Commission directs the ERO to consider providing further guidance on testing systems in a reference document."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing
Status: *In Drafting* Delivery: 2012
Solution Details:
Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10817 - The Commission directs the ERO to consider providing further guidance on testing systems in a reference document.

Para 609 Sen 6

"The Commission has discussed issues related to testing environments in CIP-005-1. In that context, the Commission clarifies the CIP NOPR proposal to require differences between the test

environment and the production system to be documented. As stated with respect to CIP-005-1, the Commission understands that test systems do not need to exactly match or mirror the production system in order to provide useful test results. However, to perform active testing, the responsible entities should be required at a minimum to create a representative system one that includes the essential equipment and adequately represents the functioning of the production system. We therefore direct the ERO to develop requirements addressing what constitutes a representative system and to modify CIP-007-1 accordingly. The Commission directs the ERO to consider providing further guidance on testing systems in a reference document."

Assigned: Project 2008-06 - Cyber Security - Order 706

DIRECTIVE: S- Ref 10818 - The Commission directs the ERO to revise the Reliability Standard to require each responsible entity to document differences between testing and production environments in a manner consistent with the discussion above.

Due 6/29/2012

Para 610

"we direct the ERO to revise the Reliability Standard to require each responsible entity to document differences between testing and production environments in a manner consistent with the discussion above."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10819 - The Commission cautions that certain changes to a production or test environment might make the differences between the two greater and directs the ERO to take this into account when developing guidance on when to require updated documentation.

Due 6/29/2012

Para 611

"611. With respect to MidAmericans proposal that the differences between the testing and production environments only be reported when the production and test environments are established, the ERO should consider this matter in the Reliability Standards development process. However, the Commission cautions that certain changes to a production or test environment might make the differences between the two greater and directs the ERO to take this into account when developing guidance on when to require updated documentation to ensure that there are no significant gaps between what is tested and what is in production."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10845 - The ERO should alleviate Northern Indianas concern that documenting vulnerability test results or any mitigation or remediation plans may reveal system vulnerabilities by providing for such reports to be reviewed under the confidentiality provisions of its Rules of Procedure.

Para 612

"612. The Commission understands Northern Indianas concern that documenting vulnerability test results or any mitigation or remediation plans may reveal system vulnerabilities. The ERO should alleviate this concern by providing for such reports to be reviewed under the confidentiality provisions of its Rules of Procedure."

Assigned: Project 2008-06 - Cyber Security - Order 706

DIRECTIVE: S- Ref 10586 - The Commission directs the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere.

Para 622 Sen 1 (Related paragraphs: 614 and 619)

"Para 622

Therefore, the Commission directs the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere. The Commission also directs the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means, consistent with our discussion above.

Para 614

The Commission proposed to direct the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere. The Commission discussed the issues of defense in depth, technical feasibility, and risk acceptance elsewhere in the CIP NOPR and applied those conclusions here. The Commission further proposed to direct the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means. (See CIP NOPR at P 240-44.)

Para 619

The Commission adopts the CIP NOPR proposal with regard to CIP-007-1, Requirement R4. Issues concerning technical feasibility and acceptance of risk are discussed above.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10854 The Commission directs the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means, consistent with our discussion above.

Para 622 Sen 2 (Related paragraphs: 614 and 619)

"Para 622

Therefore, the Commission directs the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere. The Commission also directs the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means, consistent with our discussion above.

Para 614

The Commission proposed to direct the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere. The Commission discussed the issues of defense in depth, technical feasibility, and risk acceptance elsewhere in the CIP NOPR and applied those conclusions here. The Commission

further proposed to direct the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means.

Para 619

The Commission adopts the CIP NOPR proposal with regard to CIP-007-1, Requirement R4. Issues concerning technical feasibility and acceptance of risk are discussed above.

"

Not assigned to any project.

DIRECTIVE: S- Ref 10821 - The Commission continues to believe that, in general, logs should be reviewed at least weekly and therefore adopts the CIP NOPR proposal to require the ERO to modify CIP-007-1 to require logs to be reviewed more frequently than 90 days, but leaves it to

Para 628

"The Commission continues to believe that, in general, logs should be reviewed at least weekly and therefore adopts the CIP NOPR proposal to require the ERO to modify CIP-007-1 to require logs to be reviewed more frequently than 90 days, but leaves it to the Reliability Standards development process to determine the appropriate frequency, given our clarification below, similar to our action with respect to CIP-005-1"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10822 - The Reliability Standards development process should decide the degree to which the revised CIP-007-1 describes acceptable log sampling. The ERO could also provide additional guidance on how to create the sampling of log entries, which could be in a reference document.

Para 629

"For the reasons discussed in CIP-005-1, in directing manual log review, the Commission does not require that every log be reviewed in its entirety. Instead, the Commission will allow a manual review of a sampling of log entries or sorted or filtered logs. The Commission recognizes that how a responsible entity determines what sample to review may not be the same for all locations. Therefore, the revised Reliability Standard does not need to prescribe a single method for producing the log sampling. However, how a responsible entity performs this sample review should be detailed in its cyber security policy so that it can be audited to determine compliance with the Reliability Standards. The Reliability Standards development process should decide the degree to which the revised CIP-007-1 describes acceptable log sampling. The ERO could also provide additional guidance on how to create the sampling of log entries, which could be in a reference document. The final review process, however, must be rigorous enough to enable the entity to detect intrusions by attackers."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10823 - The Commission adopts the CIP NOPR proposal to direct the ERO to clarify what it means to prevent unauthorized retrieval of data from a cyber asset prior to discarding it or redeploying it.

Para 633

"The Commission adopts the CIP NOPR proposal to direct the ERO to clarify what it means to prevent unauthorized retrieval of data from a cyber asset prior to discarding it or redeploying it."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing
Status: *In Drafting* Delivery: 2012
Solution Details:
Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10824 - The Commission directs the ERO to revise Requirement R7 of CIP-007-1 to clarify, consistent with this discussion, what it means to prevent unauthorized retrieval of data.

Para 635

"the Commission directs the ERO to revise Requirement R7 of CIP-007-1 to clarify, consistent with this discussion, what it means to prevent unauthorized retrieval of data."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing
Status: *In Drafting* Delivery: 2012
Solution Details:
Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10536 - The Commission directs the ERO to provide more direction on what features, functionality, and vulnerabilities the responsible entities should address when conducting the vulnerability assessments.

Para 643

"The Commission adopts its proposal to direct the ERO to provide more direction on what features, functionality, and vulnerabilities the responsible entities should address when conducting the vulnerability assessments, and to revise Requirement R8.4 to require an entity-imposed timeline for completion of the already-required action plan."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing
Status: *In Drafting* Delivery: 2012
Solution Details:
Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10851 - The Commission directs the ERO to revise Requirement R8.4 to require an entity-imposed timeline for completion of the already-required action plan.

Para 643

"The Commission adopts its proposal to direct the ERO to provide more direction on what features, functionality, and vulnerabilities the responsible entities should address when conducting the vulnerability assessments, and to revise Requirement R8.4 to require an entity-imposed timeline for completion of the already-required action plan."

Not assigned to any project.

DIRECTIVE: S- Ref 10587 - We direct the ERO to revise Requirement R9 to state that the changes resulting from modifications to the system or controls shall be documented quicker than 90 calendar days.

Para 651

"We direct the ERO to revise Requirement R9 to state that the changes resulting from modifications to the system or controls shall be documented quicker than 90 calendar days."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved
Status: *Filed* Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10825 - The Commission adopts the CIP NOPR proposal to direct the ERO to provide guidance regarding what should be included in the term reportable incident. we direct the ERO to develop and provide guidance on the term reportable incident.

Para 660

"The Commission adopts the CIP NOPR proposal to direct the ERO to provide guidance regarding what should be included in the term reportable incident. we direct the ERO to develop and provide guidance on the term reportable incident."

Assigned: Project 2008-06 - Cyber Security - Order 706

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: In Drafting

Solution Details:

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

DIRECTIVE: S- Ref 10826 - The Commission directs the ERO to develop a modification to CIP-008-1 to: (1) include language that takes into account a breach that may occur through cyber or physical means; (2) harmonize, but not necessarily limit, the meaning of the term reportable

Para 661

"the Commission directs the ERO to develop a modification to CIP-008-1 to: (1) include language that takes into account a breach that may occur through cyber or physical means; (2) harmonize, but not necessarily limit, the meaning of the term reportable incident with other reporting mechanisms, such as DOE Form OE 417; (3) recognize that the term should not be triggered by ineffectual and untargeted attacks that proliferate on the internet; and (4) ensure that the guidance language that is developed results in a Reliability Standard that can be audited and enforced"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10827 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1 to require each responsible entity to contact appropriate government authorities and industry participants in the event of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report.

Para 673

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1 to require each responsible entity to contact appropriate government authorities and industry participants in the event of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report. As stated in the CIP NOPR, the reporting timeframe should run from the discovery of the incident by the responsible entity, and not the occurrence of the incident."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10828 - The Commission directs the ERO to modify CIP-008-1 to require a responsible entity to, at a minimum, notify the ESISAC and appropriate government authorities of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report.

Para 676

"the Commission directs the ERO to modify CIP-008-1 to require a responsible entity to, at a minimum, notify the ESISAC and appropriate government authorities of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10830 - The Commission further directs the ERO to include language in CIP-008-1 to require revisions to the incident response plan to address these lessons learned.

Para 686

"The Commission further directs the ERO to include language in CIP-008-1 to require revisions to the incident response plan to address these lessons learned."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10829 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1, Requirement R2 to require responsible entities to maintain documentation of paper drills, full operational drills, and responses to actual incidents, all of which must include lessons learned.

Para 686

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1, Requirement R2 to require responsible entities to maintain documentation of paper drills, full operational drills, and responses to actual incidents, all of which must include lessons learned."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10855 The ERO should clarify that CIP-008-1 should require a responsible entity to verify the list of entities that must be called pursuant to its cyber security incident response plan and that the contact numbers at those agencies are correct. The ERO may use a term different than full operational exercise when doing so.

Para 687

"In light of the comments received, the Commission clarifies that, with respect to full operational testing under CIP-008-1, such testing need not require a responsible entity to remove any systems from service. The Commission understands that use of the term full operational exercise in this context can be confusing. We interpret the priority of the testing required by this provision to be that planned response actions are exercised in reference to a presumed or hypothetical incident contemplated by the cyber security response plan, and not necessarily that the presumed incident is performed on the live system. A responsible entity should assume a certain type of incident had occurred, and then ensure that its employees take what action would be required under the response plan, given the hypothetical incident. A responsible entity must ensure that it is properly identifying potential incidents as physical or cyber and contacting the appropriate government, law enforcement or industry authorities. CIP-008-1 should require a responsible entity to verify the list of entities that must be called pursuant to its cyber security incident response plan and that the contact numbers at those agencies are correct. The ERO should clarify this in the revised Reliability Standard and may use a term different than full operational exercise. (Footnote 164: Because the use of the term full operational exercise in CIP-009-1 appears to have different implications for the testing environment, we encourage the development of a different term here in CIP-008-1.)"

Not assigned to any project.

DIRECTIVE: S- Ref 10831 - For the reasons discussed in the CIP NOPR, the Commission adopts the proposal to direct the ERO to modify CIP-009-1 to include a specific requirement to implement a recovery plan.

Para 694

"For the reasons discussed in the CIP NOPR, the Commission adopts the proposal to direct the ERO to modify CIP-009-1 to include a specific requirement to implement a recovery plan."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10832 - The Commission adopts the proposal to enforce this Reliability Standard such that, if an entity has the required recovery plan but does not implement it when the anticipated event or conditions occur, the entity will not be in compliance with this Reliability Standard.

Para 694

"We further adopt the proposal to enforce this Reliability Standard such that, if an entity has the required recovery plan but does not implement it when the anticipated event or conditions occur, the entity will not be in compliance with this Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10553 - The Commission adopts, with clarification, the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to incorporate use of good forensic data collection practices and procedures into this CIP Reliability Standard.

Para 706

"The Commission adopts, with clarification, the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to incorporate use of good forensic data collection practices and procedures into this CIP Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10554 - Therefore, we direct the ERO to revise CIP-009-1 to require data collection, as provided in the Blackout Report.

Para 710 and 706

"Therefore, we direct the ERO to revise CIP-009-1 to require data collection, as provided in the Blackout Report."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10555 - The Commission adopts, with modifications, the CIP NOPR proposal to develop modifications to CIP-009-1 through the Reliability Standards development process to require an operational exercise once every three years (unless an actual incident occurs, in which case it may suffice), but to permit reliance on table-top exercises annually in other years.

Para 725

"The Commission adopts, with modifications, the CIP NOPR proposal to develop modifications to CIP-009-1 through the Reliability Standards development process to require an operational

exercise once every three years (unless an actual incident occurs, in which case it may suffice), but to permit reliance on table-top exercises annually in other years."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10846 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify Requirement R3 of CIP-009-1 to shorten the timeline for updating recovery plans.

Para 731

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify Requirement R3 of CIP-009-1 to shorten the timeline for updating recovery plans."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved

Status: *Filed* Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10833 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP- 009-1 to incorporate guidance that the backup and restoration processes and procedures required by Requirement R4 should include, at least with regard to significant changes made to the operational control system, verification that they are operational before the backups are stored or relied upon for recovery purposes.

Para 739

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP- 009-1 to incorporate guidance that the backup and restoration processes and procedures required by Requirement R4 should include, at least with regard to significant changes made to the operational control system, verification that they are operational before the backups are stored or relied upon for recovery purposes"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10834 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to provide direction that backup practices include regular procedures to ensure verification that backups are successful and backup failures are addressed, so that backups are available for future use.

Para 748

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to provide direction that backup practices include regular procedures to ensure verification that backups are successful and backup failures are addressed, so that backups are available for future use."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10588 - Therefore, we will not allow NERC to reconsider the Violation Risk Factor designations in this instance but, rather, direct below that NERC make specific modifications to its designations.

Para 757

"Therefore, we will not allow NERC to reconsider the Violation Risk Factor designations in this instance but, rather, direct below that NERC make specific modifications to its designations."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved

Status: Filed Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10589 - Consistent with the Violation Risk Factor Order, the Commission directs NERC to submit a complete Violation Risk Factor matrix encompassing each Commission approved CIP Reliability Standard.

Para 759

"Consistent with the Violation Risk Factor Order, the Commission directs NERC to submit a complete Violation Risk Factor matrix encompassing each Commission approved CIP Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved
Status: Filed Delivery: 2009
Solution Details:
Resolved

DIRECTIVE: S- Ref 10590 - The Commission adopts the CIP NOPR proposal to direct the ERO to revise 43 Violation Risk Factors.

Para 767

"The Commission adopts the CIP NOPR proposal to direct the ERO to revise 43 Violation Risk Factors."

Assigned: Project 2008-06 - Cyber Security - Order 706

Resolved
Status: Filed Delivery: 2009
Solution Details:
Resolved

FERC-Order Denying Rehearing and Granting Clarification (Order 706-A)

Issued 5/16/2008

DIRECTIVE: S- Ref 10645 - we would consider a second implementation plan for achieving compliance with the revised CIP Reliability Standards. Since these revised CIP Reliability Standards could cause additional critical assets to be identified through the external review process

Para 55

"we would consider a second implementation plan for achieving compliance with the revised CIP Reliability Standards. Since these revised CIP Reliability Standards could cause additional critical assets to be identified through the external review process, the Commission expects that the second implementation plan would include the compliance timetable for newly identified critical assets."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved
Status: Filed Delivery: 2008
Solution Details:
Resolved

DIRECTIVE: S- Ref 10646 - we expect that when NERC develops a schedule for responsible entities to bring newly identified critical assets into compliance with Reliability Standards CIP-002-1 through CIP-009-1, this schedule would be at least as prompt as the schedule it proposed

Para 56

"we expect that when NERC develops a schedule for responsible entities to bring newly identified critical assets into compliance with Reliability Standards CIP-002-1 through CIP-009-1, this schedule would be at least as prompt as the schedule it proposed in Table 4 of its Implementation Plan for compliance by newly registered entities."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

FERC-Order on Violation Severity Levels-Docket No. RR08-4

Issued 6/19/2008

DIRECTIVE: S- Ref 10650 - directed to file the modified Violation Severity Levels as identified in the Appendix within 30 days of this order, as discussed in the body of this order.

Para 1 (B)

"directed to file the modified Violation Severity Levels as identified in the Appendix within 30 days of this order, as discussed in the body of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10647 - directed to submit a report on its analysis with regard to Guideline 1 within six months of this order, as discussed in the body of this order.

Para 1 (C)

"directed to submit a report on its analysis with regard to Guideline 1 within six months of this order, as discussed in the body of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10648 - directed to submit a compliance filing within six months of this order, justifying or modifying the Violation Severity Levels with regard to Guideline 2a, as discussed in the body of this order.

Para 1 (D)

"directed to submit a compliance filing within six months of this order, justifying or modifying the Violation Severity Levels with regard to Guideline 2a, as discussed in the body of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2008

Solution Details:

Resolved

DIRECTIVE: S- Ref 10649 - directed to submit a compliance filing within six months certifying that it has reviewed each of the Violation Severity Level Assignments for consistency with Guidelines 2b, 3 and 4, validating the assignments that meet Guidelines 2b, 3, and 4, and proposing

Para 1 (E)

"directed to submit a compliance filing within six months certifying that it has reviewed each of the Violation Severity Level Assignments for consistency with Guidelines 2b, 3 and 4, validating the assignments that meet Guidelines 2b, 3, and 4, and proposing revisions to those that fail to meet Guidelines 2b, 3, and 4, as discussed in the body of this order."

Assigned: Project 2007-23 - Violation Severity Levels

Filed 2nd portion of VSLs

Status: Filed Delivery: 2011

Solution Details:

Need to file 2nd portion of VSLs

FERC-Modification of Interchange and Transmission Loading Relief Reliability Standards; and Electric Reliability Organization Interpretation of Specific Requirements of Four Reliability Standards (Order 713)

Issued 7/21/2008

DIRECTIVE: S- Ref 10159 - directs that the ERO, within 15 days of the effective date of this Final Rule, submit a filing that provides an explanation regarding specific language of Requirements R1 and R1.1 of IRO-006-4.

Para 46

"directs that the ERO, within 15 days of the effective date of this Final Rule, submit a filing that provides an explanation regarding specific language of Requirements R1 and R1.1 of IRO-006-4."

Assigned: Project 2006-08 - Transmission Loading Relief

Fixes from July 7, 2011

Status: Filed Delivery: 2008

Solution Details:

Fixed based on legal review - Dressel, Heenan, Cook

DIRECTIVE: S- Ref 10161 - Further, the ERO should explain whether Requirements R1 and R1.1 only allow the TLR procedure to be continued when already deployed prior to an actual IROL violation or, alternatively, whether Requirements R1 and R1.1 allow use of th

Para 50

"the Commission does not approve or remand IRO-006-4. Rather, the Commission directs the ERO to submit a filing, within 15 days of the effective date of this Final Rule, that provides an explanation regarding Requirements R1 and R1.1 of IRO-006-4. Specifically, in light of the above discussion, the Commission directs the ERO to provide an explanation regarding the phrase [t]he TLR procedure alone is an inappropriate and ineffective tool to mitigate an IROL violation . . . Further, the ERO should explain whether Requirements R1 and R1.1 only allow the TLR procedure to be continued when already deployed prior to an actual IROL violation or, alternatively, whether Requirements R1 and R1.1 allow use of the TLR procedure as a tool to address actual violations after they occur. If the latter, the ERO is directed to explain why this application is not contrary to both Blackout Report Recommendation 31 and the Commissions determination in Order No. 693. The EROs filing should include an explanation of those actions that are acceptable, and those that are unacceptable, pursuant to Requirement R1 and R1.1.

"

Assigned: Project 2006-08 - Transmission Loading Relief

DIRECTIVE: S- Ref 10160 - The Commission the ERO to provide an explanation regarding the phrase [t]he TLR procedure alone is an inappropriate and ineffective tool to mitigate an IROL violation . . . and also provide additional explanations (see Paragraph 50 of Order 713).

Para 50 Sen 3

"50. Therefore, the Commission does not approve or remand IRO-006-4. Rather, the Commission directs the ERO to submit a filing, within 15 days of the effective date of this Final Rule, that provides an explanation regarding Requirements R1 and R1.1 of IRO-006-4. Specifically, in light of the above discussion, the Commission directs the ERO to provide an explanation regarding the phrase [t]he TLR procedure alone is an inappropriate and ineffective tool to mitigate an IROL violation . . . Further, the ERO should explain whether Requirements R1 and R1.1 only allow the TLR procedure to be continued when already deployed prior to an actual IROL violation or, alternatively, whether Requirements R1 and R1.1 allow use of the TLR procedure as a tool to address actual violations after they occur. If the latter, the ERO is directed to explain why this application is not contrary to both Blackout Report Recommendation 31 and the Commissions

determination in Order No. 693. The EROs filing should include an explanation of those actions that are acceptable, and those that are unacceptable, pursuant to Requirement R1 and R1.1."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance Filing on 9/11/2008

Status: Filed Delivery: 2008

Solution Details:

Compliance Filing on 9/11/2008

FERC-Mandatory Reliability Standard for Nuclear Plant Interface Coordination (Order 716)

Issued 10/16/2008

DIRECTIVE: S- Ref 10652 - In addition, to ensure the matter is addressed expeditiously, direct NERC to submit a timeline for developing and filing the modification as a compliance filing to be made within 30 days of the date of this Final Rule.

Para 107

"In addition, to ensure the matter is addressed expeditiously, direct NERC to submit a timeline for developing and filing the modification as a compliance filing to be made within 30 days of the date of this Final Rule."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10651 - direct the ERO to modify Requirement 9.3.5 to clarify references to coping times and off-site por restoration to address the concerns raised in the comments through its Reliability Standards development process.

Para 107

"direct the ERO to modify Requirement 9.3.5 to clarify references to coping times and off-site por restoration to address the concerns raised in the comments through its Reliability Standards development process."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10653 - directs the ERO to revise the violation risk factor assignment for Requirement R2 from lor to medium no later then 90 days before the effective date of the Reliability Standard.

Para 156

"directs the ERO to revise the violation risk factor assignment for Requirement R2 from lor to medium no later then 90 days before the effective date of the Reliability Standard."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10654 - directs the ERO to revise the violation risk factor assignment for Requirements R4.2 and R4.3 from medium to high no later then 90 days before the effective date of the Reliability Standard.

Para 168

"directs the ERO to revise the violation risk factor assignment for Requirements R4.2 and R4.3 from medium to high no later then 90 days before the effective date of the Reliability Standard."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10655 - directs the ERO to revise the violation risk factor assignment for Requirement R5 from medium to high no later then 90 days before the effective date of the Reliability Standard.

Para 173

"directs the ERO to revise the violation risk factor assignment for Requirement R5 from medium to high no later then 90 days before the effective date of the Reliability Standard."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10656 - directs the ERO to revise the violation risk factor assignment for Requirements R7 and R8 from medium to high no later than 90 days before the effective date of the Reliability Standard.

Para 179

"directs the ERO to revise the violation risk factor assignment for Requirements R7 and R8 from medium to high no later than 90 days before the effective date of the Reliability Standard."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10657 - directs the ERO to revise the violation risk factor assignment for Requirement R9 from low to medium no later than 90 days before the effective date of the Reliability Standard.

Para 187

"directs the ERO to revise the violation risk factor assignment for Requirement R9 from low to medium no later than 90 days before the effective date of the Reliability Standard."

Assigned: Project 2009-08 - Nuclear Plant Interface Coordination

DIRECTIVE: S- Ref 10658 - directs the ERO, in enforcing NUC-001-1, to require that an integrated entity provides documentation of its arrangements, including appropriate procedures and protocols, ensuring that its business units perform the functions under NUC-001-1 that would otherwise be met by separate entities.

Para 73

"directs the ERO, in enforcing NUC-001-1, to require that an integrated entity provides documentation of its arrangements, including appropriate procedures and protocols, ensuring that its business units perform the functions under NUC-001-1 that would otherwise be met by separate entities."

Assigned: Project Compliance Internal - For directives assigned to Compliance

DIRECTIVE: S- Ref 10659 - direct the ERO to assess whether the entity providing service over the low voltage facilities is also subject to NUC-001-1, as discussed in section II(B)(2)(b), above, concerning Transmission Entities and Agreements on NPIRs.

Para 88

"direct the ERO to assess whether the entity providing service over the low voltage facilities is also subject to NUC-001-1, as discussed in section II(B)(2)(b), above, concerning Transmission Entities and Agreements on NPIRs."

Assigned: Project Compliance Internal - For directives assigned to Compliance

FERC-Order on Rehearing and Clarification-Docket Nos. RR08-4-002 and RR08-4-003

Issued 11/20/2008

DIRECTIVE: S- Ref 10660 - directs NERC to use both historical data as the Commission intended in the VSL Order and 2008 compliance data in its evaluation of assigned violation severity levels applying Guideline 1.

Para 22

"directs NERC to use both historical data as the Commission intended in the VSL Order and 2008 compliance data in its evaluation of assigned violation severity levels applying Guideline 1."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10661 - NERC must identify and compare (i) each requirement and its current violation severity level assignment, (ii) the requirements pre-2008 historical data, and (iii) the requirements 2008 compliance data.

Para 30

"NERC must identify and compare (i) each requirement and its current violation severity level assignment, (ii) the requirements pre-2008 historical data, and (iii) the requirements 2008 compliance data."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

FERC-VRF Order on Compliance Filing - Docket Nos. RM06-22-002 and RM06-22-003

Issued 1/27/2009

DIRECTIVE: S- Ref 10662 - Accordingly, the Commission approves the nine Violation Risk Factors and directs the ERO to submit a filing containing revisions to four of them, within 60 days of the date of this order. NERCs compliance filing must also include an updated, complete Vi

Para 14

"Accordingly, the Commission approves the nine Violation Risk Factors and directs the ERO to submit a filing containing revisions to four of them, within 60 days of the date of this order. NERCs compliance filing must also include an updated, complete Violation Risk Factor matrix."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

FERC-Modification of Interchange and Transmission Loading Relief Reliability Standards; and Electric Reliability Organization Interpretation of Specific Requirements of Four Reliability Standards (Order 713-A)

Issued 3/19/2009

DIRECTIVE: S- Ref 10162 - directs the ERO to develop a modification of Requirement R1.1 with respect to the term alone, consistent with this discussion.

Para 36

"directs the ERO to develop a modification of Requirement R1.1 with respect to the term alone, consistent with this discussion."

Assigned: Project 2006-08 - Transmission Loading Relief

Superseded by IRO-006-5 and IRO-006-EAST-1

Status: Regulator Approved Delivery: 2011

Solution Details:

Superseded by IRO-006-5 and IRO-006-EAST-1

DIRECTIVE: S- Ref 10163 - The Commission directs the ERO to modify the violation risk factors of Requirements R1 through R4 of IRO-006-4 to high.

Para 59

"Para 59 - For the reasons stated in the NOPR and as discussed below, the Commission directs the ERO to modify the violation risk factors of Requirements R1 through R4 of IRO-006-4 to high."

Assigned: Project 2006-08 - Transmission Loading Relief

Compliance filing on 6/22/2009

Status: Filed Delivery: 2009

Solution Details:

Compliance filing on 6/22/2009

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

FERC-Mandatory Reliability Standards for Critical Infrastructure Protection (Order 706-B)

Issued 3/19/2009

DIRECTIVE: S- Ref 10663 - Rather than the Commission setting an implementation schedule, we agree with commenters that the ERO should develop an appropriate schedule after providing for stakeholder input.

Accordingly, we direct the ERO to engage in a stakeholder process to devel

Para 60

"Rather than the Commission setting an implementation schedule, we agree with commenters that the ERO should develop an appropriate schedule after providing for stakeholder input. Accordingly, we direct the ERO to engage in a stakeholder process to develop a more appropriate timeframe for nuclear power plants full compliance with CIP Reliability Standards. Further, we direct NERC to submit, within 180 days of the date of issuance of this order, a compliance filing that sets forth a proposed implementation schedule."

Assigned: Project Standards Internal - For directives unrelated to specific standards

TFE Rule of Procedure modification filed on October 29, 2009.

Status: Filed Delivery: 2009

Solution Details:

TFE Rule of Procedure modification filed on October 29, 2009.

FERC-Version Two Facilities Design, Connections and Maintenance Reliability Standards (Order 722)

Issued 3/20/2009

DIRECTIVE: S- Ref 10678 The Commission directs WECC to assign a Severe violation severity level to the WECC regional difference FAC-010-2 Requirement 1.1 and FAC-011-2 Requirement 1.1. In addition, the Commission directs WECC to apply a Severe violation severity level to the WECC regional difference FAC-010-2 Requirement 1.2 through 1.3 and FAC-011-2 Requirements 1.2 through 1.3.

Para 100 Sen 2

"Para 100 - The Commission finds that each of the WECC regional difference requirements is a binary requirement and, therefore, a single violation severity level is appropriate. Accordingly, until such time as WECC develops and submits violation severity levels for the version two FAC Reliability Standards, the Commission adopts the NOPR proposal and directs WECC to assign a Severe violation severity level to the WECC regional difference FAC-010-2 Requirement 1.1 and FAC-011-2 Requirement 1.1. In addition, the Commission directs WECC to apply a Severe violation severity level to the WECC regional difference FAC-010-2 Requirement 1.2 through 1.3 and FAC-011-2 Requirements 1.2 through 1.3."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance Filing on May 29, 2009

Status: Filed Delivery: 2009

Solution Details:

Compliance Filing on May 29, 2009

DIRECTIVE: S- Ref 10679 The Commission directs the ERO to file revised violation risk factors and violation severity levels for the regional difference within 30 days of the effective date of this final rule.

Para 100 Sen 5

"Para 100 - The Commission finds that each of the WECC regional difference requirements is a binary requirement and, therefore, a single violation severity level is appropriate. Accordingly, until such time as WECC develops and submits violation severity levels for the version two FAC Reliability Standards, the Commission adopts the NOPR proposal and directs WECC to assign a Severe violation severity level to the WECC regional difference FAC-010-2 Requirement 1.1 and FAC-011-2 Requirement 1.1. In addition, the Commission directs WECC to apply a Severe violation severity level to the WECC regional difference FAC-010-2 Requirement 1.2 through 1.3 and FAC-011-2 Requirements 1.2 through 1.3. These revisions will create a complete and consistent penalty setting mechanism for the WECC regional difference requirements. The

Commission directs the ERO to file revised violation risk factors and violation severity levels for the regional difference within 30 days of the effective date of this final rule, as discussed above and indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance Filing on July 6, 2009

Status: Filed Delivery: 2009

Solution Details:

Compliance Filing on July 6, 2009

DIRECTIVE: S- Ref 10664 - directs the ERO to submit violation severity levels for all requirements and sub-requirements at issue in this proceeding within 30 days from the effective date of this final rule, as discussed below and as indicated in Attachment A. In light of concern

Para 46

"directs the ERO to submit violation severity levels for all requirements and sub-requirements at issue in this proceeding within 30 days from the effective date of this final rule, as discussed below and as indicated in Attachment A. In light of concerns raised in the comments, the Commission has also made minor clarifying edits to the violation severity levels for certain of the requirements and sub-requirements approved in this proceeding.³⁷ These clarifying edits are also reflected in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10665 - directs the ERO to remove violation severity level assignments for Requirements R2 and R2.6 of FAC-010-2 and Requirement R2 of FAC-011-2. The ERO shall submit its revisions to the Commission within 30 days from the issuance of this final rule, as discus

Para 50

"directs the ERO to remove violation severity level assignments for Requirements R2 and R2.6 of FAC-010-2 and Requirement R2 of FAC-011-2. The ERO shall submit its revisions to the Commission within 30 days from the issuance of this final rule, as discussed above and as indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10666 - directs the ERO to review those requirements for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of its review the earlier of six months of the effective date of the final rule or in its Violation Severity

Para 52

"directs the ERO to review those requirements for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of its review the earlier of six months of the effective date of the final rule or in its Violation Severity Level Order Guideline 2b, 3, and 4 compliance filing due in September 2009, whichever is earlier."

Assigned: Project 2007-23 - Violation Severity Levels

Filed 2nd portion of VSLs

Status: Filed Delivery: 2011

Solution Details:

Need to file 2nd portion of VSLs

DIRECTIVE: S- Ref 10667 - directs the ERO to review the violation severity levels assigned to Requirement R4 for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 within six months of the effective date of the final rule or in its Violation Severity Level O

Para 64

"directs the ERO to review the violation severity levels assigned to Requirement R4 for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 within six months of the effective date of the final rule or in its Violation Severity Level Order Guideline 2b, 3, and 4 compliance filing, whichever is earlier."

Assigned: Project 2007-23 - Violation Severity Levels

Filed 2nd portion of VSLs

Status: Filed Delivery: 2011

Solution Details:

Need to file 2nd portion of VSLs

DIRECTIVE: S- Ref 10668 - direct the ERO to assign binary violation severity levels to each sub-requirement. Sub-requirements R4.1 through R4.3 are binary requirements and should be assigned a single violation severity level. The ERO shall submit its revisions to sub-requirement

Para 65

"direct the ERO to assign binary violation severity levels to each sub-requirement. Sub-requirements R4.1 through R4.3 are binary requirements and should be assigned a single violation severity level. The ERO shall submit its revisions to sub-requirements R4.1 though R4.3 to the Commission within 30 days from the issuance of this final rule, as discussed above and as indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2009

Solution Details:

Fixes based on legal review - Dressel, Cook, Heenan

DIRECTIVE: S- Ref 10669 - directs the ERO to modify Requirement R3 of FAC-011-2 to assign a Severe violation severity level to Requirement R3 of FAC-011-2 where the reliability coordinator is missing a description of four or more sub-requirements, within the range of R3.1 through

Para 70

"directs the ERO to modify Requirement R3 of FAC-011-2 to assign a Severe violation severity level to Requirement R3 of FAC-011-2 where the reliability coordinator is missing a description of four or more sub-requirements, within the range of R3.1 through R3.7, from its methodology for determining system operating limits."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2009

Solution Details:

Fixes based on legal review - Dressel, Cook, Heenan

DIRECTIVE: S- Ref 10670 - directs the ERO to file revised violation severity levels for FAC-011-2, Requirement R3 within 30 days of the issuance of this final rule, as discussed above and as indicated in Attachment A.

Para 71

"directs the ERO to file revised violation severity levels for FAC-011-2, Requirement R3 within 30 days of the issuance of this final rule, as discussed above and as indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2009

Solution Details:

Fixes based on legal review - Dressel, Cook, Heenan

DIRECTIVE: S- Ref 10671 - directs the ERO to review the violation severity levels assigned to Requirement R4 for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of the review either within six months of the effective date of the fin

Para 74

"directs the ERO to review the violation severity levels assigned to Requirement R4 for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of the review either within six months of the effective date of the final rule or in its Violation Severity Level Order Guideline 2b, 3, and 4 compliance filing, whichever is earlier."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2009

Solution Details:

Fixes based on legal review - Dressel, Cook, Heenan

DIRECTIVE: S- Ref 10672 - direct the ERO to assign binary violation severity levels to each sub-requirement. Sub-requirements R4.1 through R4.3 are binary requirements and should be assigned a single violation severity level. The ERO shall submit its revisions to sub-requirement

Para 75

"direct the ERO to assign binary violation severity levels to each sub-requirement. Sub-requirements R4.1 through R4.3 are binary requirements and should be assigned a single violation severity level. The ERO shall submit its revisions to sub-requirements R4.1 though R4.3 to the Commission within 30 days from the issuance of this final rule, as discussed above and as indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2009

Solution Details:

Fixes based on legal review - Dressel, Cook, Heenan

DIRECTIVE: S- Ref 10673 - directs the ERO to review the violation severity levels assigned to the subject requirements for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of its review either within six months of the effective date

Para 81

"directs the ERO to review the violation severity levels assigned to the subject requirements for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of its review either within six months of the effective date of the final rule or in its Violation Severity Level Order Guideline 2b, 3, and 4 compliance filing, whichever is earlier."

Assigned: Project 2007-23 - Violation Severity Levels

Filed 2nd portion of VSLs

Status: Filed Delivery: 2011

Solution Details:

Need to file 2nd portion of VSLs

DIRECTIVE: S- Ref 10674 - directs the ERO to review the violation severity levels assigned to Requirement R4 for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of its review either within six months of the effective date of the fin

Para 84

"directs the ERO to review the violation severity levels assigned to Requirement R4 for consistency with Violation Severity Level Order Guidelines 2b, 3, and 4 and submit the results of its review either within six months of the effective date of the final rule or in its Violation Severity Level Order Guideline 2b, 3, and 4 compliance filing, whichever is earlier."

Assigned: Project 2007-23 - Violation Severity Levels

Filed 2nd portion of VSLs

Status: Filed Delivery: 2011

Solution Details:

Need to file 2nd portion of VSLs

DIRECTIVE: S- Ref 10675 - and directs the ERO to assign binary violation severity levels to Requirement R6 and sub-requirements R6.1 and R6.2. Although the enforcement of Requirement R6, and its sub-requirements, may require the use of auditors, this is a compliance issue best a

Para 89

"and directs the ERO to assign binary violation severity levels to Requirement R6 and sub-requirements R6.1 and R6.2. Although the enforcement of Requirement R6, and its sub-requirements, may require the use of auditors, this is a compliance issue best addressed on a case-by-case basis in the context of a compliance proceeding. The Commission directs the ERO to file revised violation severity levels for Reliability Standard FAC-014-2 Requirement R6 within 30 days of the effective date of this final rule, as discussed above and indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2009

Solution Details:

Fixes based on legal review - Dressel, Cook, Heenan

DIRECTIVE: S- Ref 10676 - agrees with BPAs comment relevant to designating the Regional Differences section of FAC-011-2 as section E and directs the ERO to file this revision within 30 days of the effective date of this final rule.

Para 98

"agrees with BPAs comment relevant to designating the Regional Differences section of FAC-011-2 as section E and directs the ERO to file this revision within 30 days of the effective date of this final rule."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10677 - directs CC to assign a Severe violation severity level to the CC regional difference FAC-010-2 Requirement 1.1 and FAC-011-2 Requirement 1.1. In addition, the Commission directs CC to apply a Severe violation severity level to the CC regional difference

Para 99

"directs CC to assign a Severe violation severity level to the CC regional difference FAC-010-2 Requirement 1.1 and FAC-011-2 Requirement 1.1. In addition, the Commission directs CC to apply a Severe violation severity level to the CC regional difference FAC-010-2 Requirement 1.2 through 1.3 and FAC-011-2 Requirements 1.2 through 1.3. These revisions will create a complete and consistent penalty setting mechanism for the CC regional difference requirements. The Commission directs the ERO to file revised violation risk factors and violation severity levels for the regional difference within 30 days of the effective date of this final rule, as discussed above and indicated in Attachment A."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

FERC-Western Electricity Coordinating Council Regional Reliability Standard Regarding Automatic Time Error Correction (Order 723)

Issued 5/21/2009

DIRECTIVE: S- Ref 10024 - directs WECC to develop revisions to the provision so that a balancing authority will know with specificity the circumstances that trigger the actions required by Requirement R1.2

Para 30

"directs WECC to develop revisions to the provision so that a balancing authority will know with specificity the circumstances that trigger the actions required by Requirement R1.2"

Assigned: Project Regional - For directives assigned to regions

Addressed in WECC project for BAL-004-WECC-1

Status: In Ballot Delivery: 2013

Solution Details:

This is being addressed through the revisions to Project WECC-0068, BAL-004-WECC-1. This project is nearing completion and will be presented to the WECC Operating Committee for a vote at the end of March 2012. If approved by the WECC Operating Committee it will be presented to the WECC Board of Directors for approval at the June 2012 WECC Board meeting. If approved by the WECC Board the revised standard will be sent to NERC for BOT approval and filing with FERC.

Needs to proceed through WECC development process.

Status: In Drafting

Solution Details:

Needs to proceed through WECC development process.

DIRECTIVE: S- Ref 10025 - directs WECC to develop a modification to the regional Reliability Standard consistent with CCs and NERCs explanation that the limit set forth in Requirement 2 of 24 hours per calendar quarter is an accumulated total for the period, resulti

Para 34

"directs WECC to develop a modification to the regional Reliability Standard consistent with CCs and NERCs explanation that the limit set forth in Requirement 2 of 24 hours per calendar quarter is an accumulated total for the period, resulting from either a singular event or a cumulative time limit from a number of events."

Assigned: Project Regional - For directives assigned to regions

Addressed in WECC project for BAL-004-WECC-1

Status: In Ballot Delivery: 2013

Solution Details:

This is being addressed through the revisions to Project WECC-0068, BAL-004-WECC-1. This project is nearing completion and will be presented to the WECC Operating Committee for a vote at the end of March 2012. If approved by the WECC Operating Committee it will be presented to the WECC Board of Directors for approval at the June 2012 WECC Board meeting. If approved by the WECC Board the revised standard will be sent to NERC for BOT approval and filing with FERC.

Needs to proceed through WECC development process.

Status: In Drafting

Solution Details:

Needs to proceed through WECC development process.

DIRECTIVE: S- Ref 10026 - direct NERC to develop in its Rules of Procedure, a methodology for organizing and managing regional definitions and terminology consistent with the principles discussed above.

Para 39

"direct NERC to develop in its Rules of Procedure, a methodology for organizing and managing regional definitions and terminology consistent with the principles discussed above."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Needs to proceed through WECC development process.

Status: In Drafting

Solution Details:

Needs to proceed through WECC development process.

DIRECTIVE: S- Ref 10027 - direct that the violation risk factors assigned to BAL-004-WECC-01, Requirements R1, R2, R3, and R4 be modified from low to medium. The ERO and WECC must submit a filing within 60 days of the effective date of this Final Rule that includes

Para 51

"direct that the violation risk factors assigned to BAL-004-WECC-01, Requirements R1, R2, R3, and R4 be modified from low to medium. The ERO and WECC must submit a filing within 60 days of the effective date of this Final Rule that includes the directed modifications."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10028 - directs the ERO and WECC to submit violation severity levels for each Requirement and sub-Requirement that has been assigned a violation risk factor. To allow adequate time for the development of the violation severity levels, the ERO and W

Para 54

"directs the ERO and WECC to submit violation severity levels for each Requirement and sub-Requirement that has been assigned a violation risk factor. To allow adequate time for the development of the violation severity levels, the ERO and WECC must submit a filing within 120 days of the effective date of this Final Rule that includes the directed violation severity levels."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

FERC-Electric Reliability Organization Interpretations of Specific Requirements of Frequency Response and Bias and Voltage and Reactive Control Reliability Standards

Issued 5/21/2009

DIRECTIVE: S- Ref 10780 - The Commission remanded to the ERO the proposed interpretation of VAR-001-1, Requirement R4 and directs the ERO to revise the interpretation consistent with the Commissions discussion below

Para 47

"The Commission remands to the ERO the proposed interpretation of VAR-001-1, Requirement R4 and directs the ERO to revise the interpretation consistent with the Commissions discussion below. [Note: see the Order Issued on May 21, 2009 for the complete details.]"

Assigned: Project VAR-001-1 - Interpretation

FERC-Order Approving Revised Reliability Standards for CIP-Docket No. RD09-7

Issued 9/30/2009

DIRECTIVE: S- Ref 10680 - Although Reliability Standard CIP-006-2 touches on elements of a visitor control program, it does not require Responsible Entities to establish a visitor control program. Pursuant to section 215(d)(5) of the FPA, the Commission directs the ERO to develop

Para 30

"Although Reliability Standard CIP-006-2 touches on elements of a visitor control program, it does not require Responsible Entities to establish a visitor control program. Pursuant to section 215(d)(5) of the FPA, the Commission directs the ERO to develop a modification to Reliability Standard CIP-006-2, through the NERC Reliability Standards development process, to add a requirement on visitor control programs, including the use of visitor logs to document entry and exit, within 90 days from the date of this order. While 90 days is a tight schedule compared to the typical development of Standards, facility security is critically important and thus justifies the accelerated deadline. NERC is also free to develop a guidance document addressing the parameters of an adequate visitor control program, if it believes such guidance is necessary."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

*Solution Details:
Resolved*

DIRECTIVE: S- Ref 10681 - the Commission directs the ERO to develop a modification to Reliability Standard CIP-006-2, through the NERC Reliability Standards development process, to add a requirement on visitor control programs, including the use of visitor logs to document entry

Para 30

"the Commission directs the ERO to develop a modification to Reliability Standard CIP-006-2, through the NERC Reliability Standards development process, to add a requirement on visitor control programs, including the use of visitor logs to document entry and exit"

Assigned: Project 2008-06 - Cyber Security - Order 706

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTION

Status: Filed Delivery: 2009

Solution Details:

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTION AND REQUIRING COMPLIANCE FILING of December 29, 2009.

DIRECTIVE: S- Ref 10682 - directs the ERO to develop a modification to Reliability Standard CIP-008-2, Requirement R1.6, through the NERC Reliability Standards development process, to remove the last sentence of CIP-008-2 Requirement R1.6.

Para 38

"directs the ERO to develop a modification to Reliability Standard CIP-008-2, Requirement R1.6, through the NERC Reliability Standards development process, to remove the last sentence of CIP-008-2 Requirement R1.6."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10683 - the Commission directs the ERO to develop a modification to Reliability Standard CIP-008-2, Requirement R1.6, through the NERC Reliability Standards development process, to remove the last sentence of CIP-008-2 Requirement R1.6

Para 38

"the Commission directs the ERO to develop a modification to Reliability Standard CIP-008-2, Requirement R1.6, through the NERC Reliability Standards development process, to remove the last sentence of CIP-008-2 Requirement R1.6"

Assigned: Project 2008-06 - Cyber Security - Order 706

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTION

Status: Filed Delivery: 2009

Solution Details:

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTION AND REQUIRING COMPLIANCE FILING of December 29, 2009.

DIRECTIVE: S- Ref 10684 - direct NERC to submit, within 90 days of the date of issuance of this order, a compliance filing that includes a revised Version 2 Implementation Plan, addressing the Version 2 CIP Reliability Standards, that clarifies the matters specified in the attach

Para 41

"direct NERC to submit, within 90 days of the date of issuance of this order, a compliance filing that includes a revised Version 2 Implementation Plan, addressing the Version 2 CIP Reliability Standards, that clarifies the matters specified in the attachment to this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10685 - We direct NERC to submit, within 90 days of the date of issuance of this order, a compliance filing that includes a revised Version 2 Implementation Plan, addressing the Version 2 CIP Reliability Standards, that clarifies the matters specified in the at

Para 41

"We direct NERC to submit, within 90 days of the date of issuance of this order, a compliance filing that includes a revised Version 2 Implementation Plan, addressing the Version 2 CIP Reliability Standards, that clarifies the matters specified in the attachment to this order."

Assigned: Project 2008-06 - Cyber Security - Order 706

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTIO

Status: Filed Delivery: 2009

Solution Details:

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTION AND REQUIRING COMPLIANCE FILING of December 29, 2009.

DIRECTIVE: S- Ref 10686 - direct NERC to submit as part of the compliance filing required by this order an update of the timetable that reflects the plan to address remaining Commission directives from Order No. 706. The filing should be a report of current status, addressing al

Para 44

"direct NERC to submit as part of the compliance filing required by this order an update of the timetable that reflects the plan to address remaining Commission directives from Order No. 706. The filing should be a report of current status, addressing all of the projects including those that are underway and already planned as well as those that have been deferred or not yet scheduled, with a summary description of which Order No. 706 directives NERC plans to address during each phase."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

DIRECTIVE: S- Ref 10687 - We direct NERC to submit as part of the compliance filing required by this order an update of the timetable that reflects the plan to address remaining Commission directives from Order No. 706.

Para 44

"We direct NERC to submit as part of the compliance filing required by this order an update of the timetable that reflects the plan to address remaining Commission directives from Order No. 706."

Assigned: Project 2008-06 - Cyber Security - Order 706

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTIO

Status: Filed Delivery: 2009

Solution Details:

Directive fulfilled in COMPLIANCE FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION IN RESPONSE TO THE FEDERAL ENERGY REGULATORY COMMISSIONS SEPTEMBER 30, 2009 ORDER APPROVING REVISED RELIABILITY STANDARDS FOR CRITICAL INFRASTRUCTURE PROTECTION AND REQUIRING COMPLIANCE FILING of December 29, 2009.

DIRECTIVE: S- Ref 10688 - The Commission hereby directs NERC to develop modifications to the CIP Reliability Standards using its Reliability Standards Development Process within 90 days of the date of this order, as discussed in the body of this order.

Para C

"The Commission hereby directs NERC to develop modifications to the CIP Reliability Standards using its Reliability Standards Development Process within 90 days of the date of this order, as discussed in the body of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2009

Solution Details:

Resolved

FERC-Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the (Order 729)
Issued 11/24/2009

DIRECTIVE: S- Ref 10204 - directs the ERO to modify the Reliability Standards so as to increase the document retention requirements to a term of five years, in order to be consistent with the enforcement provisions established in Order No. 670.

Para 129

"directs the ERO to modify the Reliability Standards so as to increase the document retention requirements to a term of five years, in order to be consistent with the enforcement provisions established in Order No. 670."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10206 - directs the ERO to develop a modification to the Reliability Standards pursuant to the EROs Reliability Standards development process to require disclosure of the various implementation documents to any registered entity who demonstrates to

Para 151

"directs the ERO to develop a modification to the Reliability Standards pursuant to the EROs Reliability Standards development process to require disclosure of the various implementation documents to any registered entity who demonstrates to the ERO a reliability need for such information."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10207 - Para 160 in developing the modifications to the MOD Reliability Standards directed in this Final Rule, the ERO should consider generator nameplate ratings and transmission line ratings including the comments raised by Entegra and ISO/R

Para 160

"160. In Order No. 890, the Commission also expressed concern regarding the treatment of reservations with the same point of receipt (generator), but multiple points of delivery (load), in setting aside existing transmission capacity. The Commission found that such reservations should not be modeled in the existing transmission commitments calculation simultaneously if

their combined reserved transmission capacity exceeds the generators nameplate capacity at the point of receipt. The Commission required the development of Reliability Standards that lay out clear instructions on how these reservations should be accounted for by the transmission service provider. The proposed Reliability Standards achieve this by requiring transmission service providers to identify in their implementation documents how they have implemented MOD-028-1, MOD-029-1, or MOD-030-2, including the calculation of existing transmission commitments. Thus we will not direct the ERO to develop a modification to address over-generation, as suggested by Entegra. Nonetheless, in developing the modifications to the MOD Reliability Standards directed in this Final Rule, the ERO should consider generator nameplate ratings and transmission line ratings including the comments raised by Entegra and ISO/RTO Council."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10208 - directs the ERO to develop benchmarking and updating requirements to measure modeled available transfer and flowgate capabilities against actual values. Such requirements should specify the frequency for benchmarking and updating the available transfer and flowgate capabilities

Para 162

"directs the ERO to develop benchmarking and updating requirements to measure modeled available transfer and flowgate capabilities against actual values. Such requirements should specify the frequency for benchmarking and updating the available transfer and flowgate capability values and should require transmission service providers to update their models after any incident that substantially alters system conditions, such as generation outages."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10209 - directs the ERO, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, to develop a modification to MOD-028-1 and MOD-029-1 to specify that base generation schedules used in the calculation of available transfer capability

Para 173

"Para 171 thru 173

The Commission finds that MOD-028-1 and MOD-029-1 fail to address the directive in Order No. 693 to specify how transmission service providers should determine which generators should be modeled in service when calculating available transfer capability. Specifically, the Commission directed the ERO to develop a modification to the Reliability Standards to specify that base generation schedules used in the calculation of available transfer capability will reflect the modeling of all designated network resources and other resources that are committed to or have the legal obligation to run, as they are expected to run, and to address the effect on available transfer capability of designating and undesignating a network resource.

NERC acknowledges that MOD-029-1 fails to address this directive. NERC and commenters cite to Requirement R3.1.3 of MOD-028-2 in support of arguments that the Reliability Standard reflects the modeling of designated network resources. That requirement, however, governs the calculation of total transfer capability, not existing transmission commitments. The only information provided as to the effect of designating and undesignating a network resource on existing transmission commitments is in Requirement R8 of MOD-028-1, which merely states that "the firm capacity set aside for Network Integration Transmission Service" will be included. The Reliability Standard fails to identify how that firm capacity will be calculated. By comparison, Requirements R6.1.2 and R6.2.2 of MOD-030-2 require transmission service providers to

calculate existing transmission commitments by accounting for the impact of firm network service in their transmissions model based on, among other things, unit commitment and dispatch order that includes all designated network resources. Requirement R8 of MOD-001-1 further requires the transmission service provider to perform recalculations at specified frequencies to reflect changes over time.

The Commission therefore directs the ERO, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, to develop a modification to MOD-028-1 and MOD-029-1 to specify that base generation schedules used in the calculation of available transfer capability will reflect the modeling of all designated network resources and other resources that are committed to or have the legal obligation to run, as they are expected to run, and to address the effect on available transfer capability of designating and undesignating a network resource.

"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10211 - The Commission directs the ERO to consider Entegras request regarding more frequent updates for constrained facilities through its Reliability Standards development process (see paragraph 177 of Order 729 for Entegra's comments).

Para 179

"Para 179 We agree that, in order to be useful, hourly, daily and monthly available transfer capability and available flowgate capability values must be calculated and posted in advance of the relevant time period. Requirement R8 of MOD-001-1 and Requirement R10 of MOD-030-2 require that such posting will occur far enough in advance to meet this need. With respect to Entegras request regarding more frequent updates for constrained facilities, we direct the ERO to consider this suggestion through its Reliability Standards development process. Further, we agree with Cottonwood regarding unscheduled or unanticipated events. Therefore, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, we direct the ERO to develop modifications to MOD-001-1 and MOD-030-2 to clarify that material changes in system conditions will trigger an update whenever practical. Finally, we clarify that these Reliability Standards shall not be used as a safe harbor to avoid other, more stringent reporting or update requirements.

Para 177 Entegra contends that the proposed Reliability Standard does not mandate any consistency or transparency regarding the timing of updates to available transfer capability calculations, nor does it require transmission service providers to consider whether such updates should be required more frequently for constrained facilities. Entegra states that while Requirement R8 of MOD-001-1 requires transmission service providers to update hourly, daily, and monthly available transfer capability values once every hour, day, or month, respectively, it does not set forth a deadline for such updates, nor does it require transmission service providers to disclose when such updates must occur, and that therefore the values may have become inaccurate by the time they are eventually disclosed. Accordingly, Entegra asks the Commission to direct the ERO to revise MOD-001-1, Requirement R8 to include a one-hour time limit for updates to daily and monthly available transfer capability values. In addition, Entegra asks the Commission to direct the ERO to modify the Reliability Standard to require transmission service providers to consider whether more frequent updates are necessary for constrained facilities.

"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10212 - The Commission directs the ERO to develop modifications to MOD-001-1 and MOD-030-2 to clarify that material changes in system conditions will trigger an update whenever practical (see also paragraph 23 of Order 729-A).

Para 179 Sen 5

"Para 179 We agree that, in order to be useful, hourly, daily and monthly available transfer capability and available flowgate capability values must be calculated and posted in advance of the relevant time period. Requirement R8 of MOD-001-1 and Requirement R10 of MOD-030-2 require that such posting will occur far enough in advance to meet this need. With respect to Entegras request regarding more frequent updates for constrained facilities, we direct the ERO to consider this suggestion through its Reliability Standards development process. Further, we agree with Cottonwood regarding unscheduled or unanticipated events. Therefore, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, we direct the ERO to develop modifications to MOD-001-1 and MOD-030-2 to clarify that material changes in system conditions will trigger an update whenever practical. Finally, we clarify that these Reliability Standards shall not be used as a safe harbor to avoid other, more stringent reporting or update requirements.

Para 23 from Order 729-A:

The Commission agrees that it could be difficult in some instances to enforce a requirement that hinges upon such phrases as material changes and whenever practical. Nevertheless, we believe that such modifications would be useful to ensure timely updates of available transfer or flowgate capability values. If the ERO is unable to modify the requirements of MOD-001-1 and MOD-030-2 to incorporate such language in a manner that sets clear criteria or measures of whether an entity is in compliance with the relevant Reliability Standard or cannot otherwise identify specific changes in system conditions that require an update, the ERO must, at a minimum, include this language in its measures of compliance associated with those Reliability Standards.

"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10214 - the Commission directs the ERO to develop modifications to MOD-001-1 pursuant to the EROs Reliability Standards development process to prevent the double-counting of data inputs and assumptions. In developing these modifications, the ERO sh

Para 184

"the Commission directs the ERO to develop modifications to MOD-001-1 pursuant to the EROs Reliability Standards development process to prevent the double-counting of data inputs and assumptions. In developing these modifications, the ERO should consider the effects of conditional firm service."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10215 - directs the ERO to develop a modification to the Reliability Standard pursuant to its Reliability Standards development process requiring transmission service providers to include in their implementation documents any inconsistent modeling

Para 192

"directs the ERO to develop a modification to the Reliability Standard pursuant to its Reliability Standards development process requiring transmission service providers to include in their implementation documents any inconsistent modeling practices along with a justification for such inconsistencies"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10216 - Para 200 we encourage the ERO to consider Midwest ISOs and Entegras comments when developing other modifications to the MOD Reliability Standards pursuant to the EROs Reliability Standards development procedure.

Para 200

"200.With regard to Midwest ISOs concern, while the terms assumptions and no more limiting as used in Requirements R6 and R7 could benefit from further granularity, we find these Requirements to be sufficiently clear for purposes of compliance. Likewise, with regard to Entegras concern, we agree that transmission service providers should use data and assumptions for their available transfer capability or available flowgate capability and total transfer capability or total flowgate capability calculations that are consistent with those used in the planning of operations and system expansion. Under Requirements R6 and R7, transmission service providers and transmission operators must not overstate assumptions that are used in planning of operations. We believe these requirements are sufficiently clear as written. Nonetheless, we encourage the ERO to consider Midwest ISOs and Entegras comments when developing other modifications to the MOD Reliability Standards pursuant to the EROs Reliability Standards development procedure."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10217 - direct the ERO to develop a modification to Requirements R3.1 and R.4.1 of MOD-004-1 to require load-serving entities and resource planners to determine generation capability import requirements by reference to one or more relevant studies

Para 220

"direct the ERO to develop a modification to Requirements R3.1 and R.4.1 of MOD-004-1 to require load-serving entities and resource planners to determine generation capability import requirements by reference to one or more relevant studies (loss of load expectation, loss of load probability or deterministic risk analysis) and applicable reserve margin or resource adequacy requirements, as relevant. Such a modification should ensure that a transmission service provider has adequate information to establish the appropriate level of capacity benefit margin."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10218 - directs the ERO to modify MOD-004-1 to clarify the term manage in Requirement R1.3. This modification should ensure that the Reliability Standard clarify how the transmission service provider will manage situations where the requested use o

Para 222

"directs the ERO to modify MOD-004-1 to clarify the term manage in Requirement R1.3. This modification should ensure that the Reliability Standard clarify how the transmission service

provider will manage situations where the requested use of capacity benefit margin exceeds the capacity benefit margin available"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10219 - directs the ERO to develop a modification sub-requirement R2.2 pursuant to its Reliability Standards development process to clarify the phrase adjacent and beyond Reliability Coordination areas.

Para 231

"directs the ERO to develop a modification sub-requirement R2.2 pursuant to its Reliability Standards development process to clarify the phrase adjacent and beyond Reliability Coordination areas."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10220 - Para 234 the Commission agrees that a graduated time frame for reposting could be reasonable in some situations. Accordingly, the ERO should consider this suggestion when making future modifications to the Reliability Standards.

Para 234

"234. The Commission believes that, as written, the time frames established in Requirement R5 are just and reasonable because they balance the need to reliably operate the grid with the burden on transmission operators to recalculate total transfer capability even when total transfer capability does not often change. Nevertheless, the Commission agrees that a graduated time frame for reposting could be reasonable in some situations. Accordingly, the ERO should consider this suggestion when making future modifications to the Reliability Standards."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10221 - directs the ERO to develop a modification to MOD-028-1 pursuant to its Reliability Standards development process to address these two concerns.

Para 237

"directs the ERO to develop a modification to MOD-028-1 pursuant to its Reliability Standards development process to address these two concerns."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10222 - Para 246 The ERO should consider Puget Sounds concerns on this issue when making future modifications to the Reliability Standards.

Para 246

"246. Puget Sounds request is reasonable, and insofar as calculating non-firm available transfer capability using counterschedules as opposed to counterflows achieves substantially equivalent results, using them will not be considered a violation. However, we do not have enough

information to determine that the terms are generally interchangeable in all circumstances. The ERO should consider Puget Sounds concerns on this issue when making future modifications to the Reliability Standards.

245. Puget Sound comments that counterflows are a mandatory component of the available transfer capability formula but contends that it is common practice in the Western Interconnection to incorporate counterschedules into non-firm available transfer capability calculations, instead of counterflows as defined in the formula. Puget Sound therefore requests that the Commission clarify in the Final Rule that using counterschedules will not be considered a violation of MOD-029-1. In addition, Puget Sound asks the Commission to clarify that counterflows and counterschedules are interchangeable terms, consistent with Western Interconnection practices."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10223 - The Commission also directs the ERO to make explicit such [effective date] detail in any future version of this or any other Reliability Standard.

Para 269

"The Commission also directs the ERO to make explicit such [effective date] detail in any future version of this or any other Reliability Standard."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10224 - hereby directs the ERO to file revised violation severity levels and violation risk factors no later than 120 days before the Reliability Standards become effective.

Para 274

"hereby directs the ERO to file revised violation severity levels and violation risk factors no later than 120 days before the Reliability Standards become effective."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Fixed based on Legal review. Note date may not be 100% accurate, but I think it was late November - AJR

DIRECTIVE: S- Ref 10128 - The Commission directs the ERO to develop modifications to FAC-012-1 and FAC-013-1 to comply with the relevant directives of Order No. 693 to include, but not limited to, removing redundant provisions for the calculation of transfer capability addressed elsewhere in the MOD Reliability Standards.

Para 291

"291. The Commission hereby adopts its NOPR proposal to deny NERCs request to withdraw FAC-012-1 and retire FAC-013-1. Instead, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, the Commission directs the ERO to develop modifications to FAC-012-1 and FAC-013-1 to comply with the relevant directives of Order No. 693 and, as otherwise necessary, to make the requirements of those Reliability Standards consistent with those of the MOD Reliability Standards approved herein as well as this Final Rule. These modifications should also remove redundant provisions for the calculation of transfer capability addressed elsewhere in the MOD Reliability Standards. In making these revisions, the ERO should consider the development of a methodology for calculation of inter-regional and intra-regional transfer capabilities. The Commission accepts the EROs request for additional time to prepare the

modifications and so directs the ERO to submit the modifications to FAC-012-1 and FAC-013-1 no later than 60 days before the MOD Reliability Standards become effective."

Assigned: Project 2010-10 - FAC Order 729

TBD

Status: Filed Delivery: 2008

Solution Details:

TBD

Standard FAC-013-2 addresses the "Near-Term Planning Horizon".

Status: Filed Delivery: 2011

Solution Details:

Standard FAC-013-2 addresses modeling and data requirements as-well-as communication of methodology and results in the Near-Term Planning Horizon.

DIRECTIVE: S- Ref 10226 - directs the ERO to develop a modification to the definition of Postback to eliminate the reference to Business Practices.

Para 304

"directs the ERO to develop a modification to the definition of Postback to eliminate the reference to Business Practices."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10227 - direct the ERO to develop a modification to the definition of Business Practices that would remove the reference to regional reliability organizations and replace it with the term Regional Entity. also direct the ERO to develop a definition

Para 305

"direct the ERO to develop a modification to the definition of Business Practices that would remove the reference to regional reliability organizations and replace it with the term Regional Entity. also direct the ERO to develop a definition of the term Regional Entity to be included in the NERC Glossary."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10229 - direct the ERO to develop a modification to the definition of ATC Path that does not reference the Commissions regulations

Para 306

"direct the ERO to develop a modification to the definition of ATC Path that does not reference the Commissions regulations"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

FERC-Order Denying Rehearing and Granting Clarification-Docket No. RM06-22-010

Issued 12/17/2009

DIRECTIVE: S- Ref 10689 - directs NERC to make a compliance filing within thirty days of the date of this order submitting to the Commission the following information: • the anticipated date the scope of systems determination framework will be finalized; • the status of the deve

Para 14

"directs NERC to make a compliance filing within thirty days of the date of this order submitting to the Commission the following information:

- the anticipated date the scope of systems determination framework will be finalized;
- the status of the development of the exemption process;
- whether the exemption process will include: (i) an application deadline and (ii) a deadline for a determination on an exemption request; and
- a description of any other time parameters that may be included in the exemption process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10690 - we direct NERC to submit as part of its compliance filing, a revised Implementation Plan that incorporates Version 2 CIP Standards into the Implementation Plan schedule.

Para 15

"we direct NERC to submit as part of its compliance filing, a revised Implementation Plan that incorporates Version 2 CIP Standards into the Implementation Plan schedule."

Assigned: Project 2010-09 - Cyber Security Order 706B — Nuclear Plant Implementation Plan

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10691 - Further, in future filings proposing modifications to the CIP Standards, NERC must address how owners and operators of nuclear power plants located in the United States will implement the revised CIP Standards and whether owners and operators can implem

Para 16

"Further, in future filings proposing modifications to the CIP Standards, NERC must address how owners and operators of nuclear power plants located in the United States will implement the revised CIP Standards and whether owners and operators can implement the revised CIP Standards under the proposed Implementation Plan. If NERC does not believe that such future modifications can be implemented under the Implementation Plans schedule, NERC must propose in the filing a new implementation plan addressing nuclear power plant owners and operators compliance with the proposed modifications."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10692 - ERO should consider the appropriateness of developing a memorandum of understanding with the NRC, or revising existing agreements, to address such matters as NRC staff consultation in the exception application process and sharing of Safeguard Informatio

Para 17

"ERO should consider the appropriateness of developing a memorandum of understanding with the NRC, or revising existing agreements, to address such matters as NRC staff consultation in the exception application process and sharing of Safeguard Information. Consistent with Order No. 706-B, the Commission leaves the development of a memorandum of understanding to the discretion of NERC and the NRC."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

FERC-Order Approving Technical Feasibility Exception Procedures and Ordering Compliance Filing

Issued 1/21/2010

DIRECTIVE: S- Ref 10693 - revise section 1.3 as necessary to designate CIP-006-1 R1.1 as an Applicable Requirement subject to the TFE procedure.

Para 20

"revise section 1.3 as necessary to designate CIP-006-1 R1.1 as an Applicable Requirement subject to the TFE procedure."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10694 - direct the ERO to submit a compliance filing, within 90 days of the date of this order, identifying the purpose of a Class-Type TFE list and defining the process for identifying Class-Type TFEs and the procedure for publishing and maintaining the Class-

Para 27

"direct the ERO to submit a compliance filing, within 90 days of the date of this order, identifying the purpose of a Class-Type TFE list and defining the process for identifying Class-Type TFEs and the procedure for publishing and maintaining the Class-Type TFE list. Further Commission action may be necessary depending on the content of this compliance filing."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10695 - directs NERC to provide a semi-annual, non-public report to the Commission tracking additions, modifications, and deletions to the Class-Type TFE list and describing the reasons behind the changes.

Para 28

"directs NERC to provide a semi-annual, non-public report to the Commission tracking additions, modifications, and deletions to the Class-Type TFE list and describing the reasons behind the changes."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10696 - believe a uniform framework for establishing TFEs under the criteria in Section 3.1 is necessary and appropriate to ensure the effective administration of the TFE process. We therefore direct NERC: (1) to designate which entity or entities will determin

Para 32

"believe a uniform framework for establishing TFEs under the criteria in Section 3.1 is necessary and appropriate to ensure the effective administration of the TFE process. We therefore direct NERC: (1) to designate which entity or entities will determine under section 3.1(iv) what safety risks or issues outweigh the benefits of Strict Compliance with the Applicable Requirement, (2) to designate the entity or entities responsible for determining under section 3.1(vi) what costs far exceed the benefits to the reliability of the Bulk Electric System, and (3) to specify the manner in which reliability benefits are intended to be quantified to make this determination. The modifications set forth above should be made in a compliance filing within ninety days of the date of this order. In the event that multiple entities, such as the various Regional Entities, will be responsible for making the determinations under sections 3.1(iv) and (vi), NERC must include the steps that it will take to ensure consistency and security in administering the TFE process."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10697 - NERC is hereby directed to modify section 3.2 of Appendix 4D to require any alternative means of compliance to achieve a comparable level of security as Strict Compliance with the requirement. NERC must submit a revised section 3.2 of Appendix 4D in a c

Para 35

"NERC is hereby directed to modify section 3.2 of Appendix 4D to require any alternative means of compliance to achieve a comparable level of security as Strict Compliance with the requirement. NERC must submit a revised section 3.2 of Appendix 4D in a compliance filing within ninety days of the date of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10698 - Commission directs NERC to establish a uniform set of required information for the Part A submission and incorporate it in into its Rules of Procedure. Creating a uniform set of required information will ensure consistency among the regions and will ens

Para 38

"Commission directs NERC to establish a uniform set of required information for the Part A submission and incorporate it in into its Rules of Procedure. Creating a uniform set of required information will ensure consistency among the regions and will ensure that NERC is receiving all of the information necessary to prepare its required reports. NERC should submit the above described revisions in its compliance filing within ninety days of the date of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10699 - Due to concerns over the frequency and complexity of TFE use as well as concerns over both time and the adequacy of Regional Entity resources, the Commission believes that the burden of establishing a valid TFE should remain squarely with the Responsibl

Para 42

"Due to concerns over the frequency and complexity of TFE use as well as concerns over both time and the adequacy of Regional Entity resources, the Commission believes that the burden of establishing a valid TFE should remain squarely with the Responsible Entity requesting it. Accordingly, we direct NERC to change section 5.2.5 of Appendix 4D to address this concern."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10700 - The Commission approves section 5.3 and also directs NERC to revise this section as discussed below. NERC must submit revisions to section 5.3 in a compliance filing within ninety days of the date of this order. As proposed, section 5.3 establishes a pe

Para 45

"The Commission approves section 5.3 and also directs NERC to revise this section as discussed below. NERC must submit revisions to section 5.3 in a compliance filing within ninety days of the

date of this order. As proposed, section 5.3 establishes a period during which a Responsible Entity will not be subject to enforcement action after a Regional Entity takes adverse action on a TFE Request. In particular, section 5.3 grants a Regional Entity broad discretion in determining the maximum period of time during which the Responsible Entity would not be in violation of an Applicable Requirement for which the Regional Entity has rejected or disapproved a TFE Request. As drafted, section 5 permits the Regional Entity to set an Effective Date far in the future, thus maximizing the period for which violations could not be found and penalties could not be ordered. While some discretion is useful to allow the Regional Entity to tailor each case to its unique circumstances, section 5 is entirely open-ended, setting no maximum time period for the Effective Date. A Regional Entity may, by choosing a date far into the future, effectively grant amnesty to a Responsible Entity for an unspecified and indefinite period of time after rejection or disapproval of a TFE request. The Commission believes that stricter limits and guidelines regarding the Effective Date will curb the potential for abuse and likely improve the quality of TFE requests. Accordingly, the Commission requires NERC to adopt in the TFE procedures the following revisions."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10701 - First, there must be an outer limit to the Regional Entity's determination of an Effective Date. directs NERC to revise sections 5.1.5 and 5.2.6 to set an outer limit for the Effective Date that the Regional Entity must observe absent exceptional circumstances

Para 46

"First, there must be an outer limit to the Regional Entity's determination of an Effective Date. directs NERC to revise sections 5.1.5 and 5.2.6 to set an outer limit for the Effective Date that the Regional Entity must observe absent exceptional circumstances. Although NERC should propose in its compliance filing an appropriate outer limit, the Commission notes that an outer limit of no longer than 60 days after the Regional Entity's issuance of a notice of rejection and no longer than 90 days after the Regional Entity's issuance of a notice of disapproval should be sufficient in most cases for a Responsible Entity to submit and obtain approval from the Regional Entity of a mitigation plan or to bring itself into Strict Compliance with particular Applicable Requirements of the CIP Standards. Because there are a number of pending TFE requests, the Commission directs NERC to use, on an interim basis until NERC files and the Commission approves the compliance filing addressing this issue, an outer limit on Effective Dates of no longer than 60 days after issuance of a notice of rejection and no longer than 90 days after the issuance of a notice of disapproval."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10702 - Second, the above-described outer limit should include a qualifier that would permit, where exceptional circumstances warrant, the Regional Entity to set an Effective Date that accommodates situations where the applicable outer limit is not sufficient

Para 47

"Second, the above-described outer limit should include a qualifier that would permit, where exceptional circumstances warrant, the Regional Entity to set an Effective Date that accommodates situations where the applicable outer limit is not sufficient for a Responsible Entity to achieve Strict Compliance with the Reliability Standard at issue. If the Regional Entity determines that exceptional circumstances warrant an Effective Date that is after the proscribed outer limit, we direct the Regional Entity to provide a detailed explanation of such determination

in the notice of rejection/disapproval to the Responsible Entity and to provide a copy of such notice to NERC. This requirement, to be added in the compliance filing, would continue to afford the Regional Entity discretion in tailoring each case to its unique circumstances but would also ensure that any extended period be supported by a clear rationale and awarded only to legitimate TFE requests subject to NERCs oversight to, among other things, ensure correct and consistent application."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10703 - We also find that if a TFE Request was not made in good faith or was fraudulent, the Responsible Entity should be subject to an enforcement action where the provisions and protections of section 5.3 are not applicable. The Commission will not tolerate T

Para 48

"We also find that if a TFE Request was not made in good faith or was fraudulent, the Responsible Entity should be subject to an enforcement action where the provisions and protections of section 5.3 are not applicable. The Commission will not tolerate TFE Requests that were not made in good faith or that were fraudulent and we fully expect NERC and Regional Entity staff to monitor TFE requests to detect the misuse of the exceptions procedure. Accordingly, the Commission directs NERC to add a provision to this effect in its 90-day compliance filing."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on Legal review - Cook, Hennan, Dressel.

DIRECTIVE: S- Ref 10704 - it is critical that the ERO, Regional Entities, and the Commission understand the circumstances and manner in which responsible entities invoke a TFE. See Order No. 706 at P 220. As discussed in more detail below, NERCs annual report to the Commission s

Para Footnote 44

"it is critical that the ERO, Regional Entities, and the Commission understand the circumstances and manner in which responsible entities invoke a TFE. See Order No. 706 at P 220. As discussed in more detail below, NERCs annual report to the Commission should address circumstances and justifications for TFEs and the mitigation measures used to address vulnerabilities."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance Filing on Sept 28, 2011

Status: Filed Delivery: 2011

Solution Details:

First compliance filing on Sept 28, 2011

FERC-Order Setting Deadline for Compliance-Docket No. RM06-16-010

Issued 3/18/2010

DIRECTIVE: S- Ref 10032 - Para 14 the Commission directs NERC to submit, within six months from the date of issuance of this order, a modification to BAL-003-0 that complies with the Commissions directives as set forth in Order No. 693.

Due 10/25/2010

Para 14

"14.Pursuant to section 39.5(g) of the Commissions regulations, the Commission directs NERC to submit, within six months from the date of issuance of this order, a modification to BAL-003-0 that complies with the Commissions directives as set forth in Order No. 693:

(1) Determine an appropriate periodicity of frequency response surveys necessary to ensure that Requirement R2 and other requirements of the Reliability Standard are being met.

(2) Define the necessary amount of frequency response needed for reliable operation for each balancing authority with methods of obtaining and measuring that the frequency response is achieved.

"

Assigned: Project 2007-12 - Frequency Response

FERC granted a rehearing on May 25, 2010.

Status: Regulator Approved Delivery: 2012

Solution Details:

FERC granted a rehearing on May 25, 2010. A proposed schedule for completion of Project 2007-12 Frequency Response was accepted by FERC mandating a delivery date of May 2012.

FERC-Transmission Relay Loadability Reliability Standard-Docket No. RM08-13 (Order 733)

Issued 3/18/2010

DIRECTIVE: S- 10723 - The Commission directs the ERO to submit to the Commission an updated and specific timeline explaining when it expects to develop and submit a proposed Reliability Standard addressing generator relay loadability.

Para 105

"Para 105 - In light of the EROs statement that within two years it expects to submit to the Commission a proposed Reliability Standard addressing generator relay loadability, we direct the ERO to submit to the Commission an updated and specific timeline explaining when it expects to develop and submit this proposed Standard. While we recognize that generator relay loadability is a complex issue that presents different challenges than transmission relay loadability, we note that more than six years have passed since the August 2003 blackout and there is still no Reliability Standard that addresses generator relay loadability. With this in mind, the Commission will not hesitate to direct the development of a new Reliability Standard if the ERO fails to propose a Standard in a timely manner. While the ERO is developing a technical reference document to facilitate the development of a Reliability Standard for generator protection systems, only Reliability Standards create enforceable obligations under section 215 of the FPA."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on July 16, 2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on July 16, 2010

DIRECTIVE: S- 10724 - The Commission expects the ERO to develop the Reliability Standard addressing generator relay loadability as a new Standard, with its own individual timeline, and not as a revision to an existing Standard.

Para 106

"Para 106 - We also expect that the ERO will develop the Reliability Standard addressing generator relay loadability as a new Standard, with its own individual timeline, and not as a revision to an existing Standard. While we agree that PRC-001-1 requires, among other things, the coordination of generator and transmission protection systems, we think that generator relay loadability, like transmission relay loadability, should be addressed in its own Reliability Standard if it is not to be addressed with transmission relay loadability."

Assigned: Project 2010-13.2 - Phase 2 of Relay Loadability Order 733: Generation

TBD

Status: In Drafting Delivery: 2014

Solution Details:

TBD

DIRECTIVE: S- Ref 10725 - direct the ERO to develop a Reliability Standard that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement.

Para 150

"direct the ERO to develop a Reliability Standard that requires the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases out protective relay systems that cannot meet this requirement."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10726 - We also direct the ERO to file a report no later than 120 days of this Final Rule addressing the issue of protective relay operation due to power swings. The report should include an action plan and timeline that explains how and when the ERO intends to

Para 150

"We also direct the ERO to file a report no later than 120 days of this Final Rule addressing the issue of protective relay operation due to power swings. The report should include an action plan and timeline that explains how and when the ERO intends to address this issue through its Reliability Standards development process"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on July 16, 2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on July 16, 2010

DIRECTIVE: S- Ref 10727 - find that undesirable relay operation due to stable power swings is a specific matter that the ERO must address to carry out the goals of section 215, and we direct the ERO to develop a Reliability Standard addressing undesirable relay operation due to

Para 153

"find that undesirable relay operation due to stable power swings is a specific matter that the ERO must address to carry out the goals of section 215, and we direct the ERO to develop a Reliability Standard addressing undesirable relay operation due to stable power swings."

Assigned: Project 2010-13.3 - Phase 3 of Relay Loadability Order 733: Stable Power Swings

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10713 - Also, pursuant to section 215(d)(5) of the FPA, the Commission adopts some of the proposed modifications in the NOPR and thus directs certain modifications to the Reliability Standard. Unless stated otherwise, the Commission directs the ERO to submit th

Para 16

"Also, pursuant to section 215(d)(5) of the FPA, the Commission adopts some of the proposed modifications in the NOPR and thus directs certain modifications to the Reliability Standard. Unless stated otherwise, the Commission directs the ERO to submit these modifications no later than one year from the date of this Final Rule."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10728 - The Commission directs the ERO to consider islanding strategies that achieve the fundamental performance for all islands in developing the new Reliability Standard addressing stable power swings.

Para 162

"Para 142 - The PSEG Companies speculate that the post-blackout relay mitigation programs conducted by NERC may have already mitigated the unexpected tripping of the transmission lines during the August 2003 blackout. The PSEG Companies add that it is possible that the only reason the blackout stopped was because these lines unexpectedly tripped. The PSEG Companies assert that the approach to stable power swings should be all encompassing and include the development and implementation of islanding strategies in conjunction with out-of-step blocking (or tripping) requirements.

Para 162 - The PSEG Companies also assert that the Commissions approach to stable power swings should be inclusive and include islanding strategies in conjunction with out-of-step blocking or tripping requirements. We agree with the PSEG Companies and direct the ERO to consider islanding strategies that achieve the fundamental performance for all islands in developing the new Reliability Standard addressing stable power swings.

"

Assigned: Project 2010-13.3 - Phase 3 of Relay Loadability Order 733: Stable Power Swings

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10729 - The Commission directs the ERO to develop a new Reliability Standard that prevents protective relays from operating unnecessarily due to stable power swings by requiring the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases-out relays that cannot meet this requirement.

Para 173

"Para 173 - In sum, we adopt the NOPR proposal and direct the ERO to develop a new Reliability Standard that prevents protective relays from operating unnecessarily due to stable power swings by requiring the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases-out relays that cannot meet this requirement. NERC requests that the Commission allow PRC-023-1 to remain focused on steady state relay loadability and leave stable power swings to be specifically addressed in a different Reliability Standard. We agree that this is a reasonable approach. Meanwhile, to maintain reliability, the Commission expects entities to continue to include the effects of protection settings in TPL and TOP assessments for future systems and in the determination of IROLs and SOLs."

Assigned: Project 2010-13.3 - Phase 3 of Relay Loadability Order 733: Stable Power Swings

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10730 - direct the ERO to modify PRC-023-1 to require that transmission owners, generator owners, and distribution providers give their transmission operators a list of transmission facilities that implement sub-requirement R1.2.

Para 186

"direct the ERO to modify PRC-023-1 to require that transmission owners, generator owners, and distribution providers give their transmission operators a list of transmission facilities that implement sub-requirement R1.2."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

New Requirement R4

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by adding a new Requirement R4 that requires

each Transmission Owner, Generator Owner, and Distribution Provider to provide its Planning Coordinator, Transmission Operator, and Reliability Coordinator with an updated list of circuits that implement Requirement R1, criterion 2.

DIRECTIVE: S- Ref 10731 - direct the ERO to modify sub-requirement R1.10 so that it requires entities to verify that the limiting piece of equipment is capable of sustaining the anticipated overload for the longest clearing time associated with the fault.

Para 203

"direct the ERO to modify sub-requirement R1.10 so that it requires entities to verify that the limiting piece of equipment is capable of sustaining the anticipated overload for the longest clearing time associated with the fault."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Requirement R1, 1.10.1

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by modifying Requirement R1, criterion 10 to include sub-requirement 10.1 that requires entities to set load responsive transformer fault protection relays, if used, such that the protection settings do not expose the transformer to a fault level and duration that exceed the transformers mechanical withstand capability.

DIRECTIVE: S- Ref 10732 - direct the ERO to document, subject to audit by the Commission, and to make available for review to users, owners and operators of the Bulk-Power System, by request, a list of those facilities that have protective relays set pursuant sub-requirement R1.

Para 224

"direct the ERO to document, subject to audit by the Commission, and to make available for review to users, owners and operators of the Bulk-Power System, by request, a list of those facilities that have protective relays set pursuant sub-requirement R1.12."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

New Requirement R5

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by adding a new Requirement R5 to provide the ERO with the information necessary to document and to make available for review to users, owners, and operators of the Bulk-Power System, by request, a list of those facilities that have protective relays set pursuant to Requirement R1, criterion 12.

DIRECTIVE: S- Ref 10733 - direct the ERO to modify the Reliability Standard to add the Regional Entity to the list of entities that receive the critical facilities list.

Para 237

"direct the ERO to modify the Reliability Standard to add the Regional Entity to the list of entities that receive the critical facilities list."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Requirement R6, part 6.2 (formerly R3.3)

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by modifying Requirement R6, part 6.2 (formerly Requirement R3.3 in PRC-023-1), by adding the Regional Entity to the list of entities that receive the list of circuits from the Planning Coordinator.

DIRECTIVE: S- Ref 10734 - direct the ERO to include section 2 of Attachment A in the modified Reliability Standard as an additional Requirement with the appropriate violation risk factor and violation severity level.

Para 244

"direct the ERO to include section 2 of Attachment A in the modified Reliability Standard as an additional Requirement with the appropriate violation risk factor and violation severity level."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

New Requirement R2

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by adding Requirement R2, with an appropriate violation risk factor and violation severity level, to require entities to set out-of-step blocking elements to allow tripping of phase protective relays for faults that occur during the loading conditions used to verify transmission line relay loadability per Requirement R1. This new requirement replaces the requirement in Attachment A, section 2 of PRC-023-1.

DIRECTIVE: S- Ref 10735 - direct the ERO to revise section 1 of Attachment A to include supervising relay elements on the list of relays and protection systems that are specifically subject to the Reliability Standard.

Para 264

"direct the ERO to revise section 1 of Attachment A to include supervising relay elements on the list of relays and protection systems that are specifically subject to the Reliability Standard."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Revised Attachment A Section 1

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by revising Attachment A, section 1 to include phase overcurrent supervisory elements (i.e., phase fault detectors) associated with current-based, communication-assisted schemes (i.e., pilot wire, phase comparison, and line current differential) where the scheme is capable of tripping for loss of communications.

DIRECTIVE: S- Ref 10736 - direct the ERO to modify the Reliability Standard to include an implementation plan for sub-100 kV facilities.

Para 283

"direct the ERO to modify the Reliability Standard to include an implementation plan for sub-100 kV facilities."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Included in plan

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by including an implementation plan for sub-100 kV facilities within the standard.

DIRECTIVE: S- Ref 10737 - direct the ERO to remove the exceptions footnote from the Effective Dates section.

Para 284

"direct the ERO to remove the exceptions footnote from the Effective Dates section."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Revised footnote

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by removing of the exceptions footnote from the Effective Dates section.

DIRECTIVE: S- Ref 10769 - direct the ERO to re-file the violation risk factors associated with the Requirements of PRC-023-1 when it submits its comprehensive plan.

Para 295 Footnote 197

"direct the ERO to re-file the violation risk factors associated with the Requirements of PRC-023-1 when it submits its comprehensive plan."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10738 - direct the ERO to assign a high violation risk factor to Requirement R3 and to file the new violation risk factor no later than 30 days after the date of this Final Rule..

Para 297

"direct the ERO to assign a high violation risk factor to Requirement R3 and to file the new violation risk factor no later than 30 days after the date of this Final Rule.."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on 4/19/2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on 4/19/2010

DIRECTIVE: S- Ref 10739 - direct the ERO to assign a single violation severity level of severe for violations of Requirement R1.

Para 308

"direct the ERO to assign a single violation severity level of severe for violations of Requirement R1."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on 4/19/2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on 4/19/2010

DIRECTIVE: S- Ref 10740 - direct the ERO to change the violation severity level assigned to Requirement R2 from lower to severe to be consistent with Guideline 2a.

Para 310

"direct the ERO to change the violation severity level assigned to Requirement R2 from lower to severe to be consistent with Guideline 2a."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on 4/19/2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on 4/19/2010

DIRECTIVE: S- Ref 10741 - direct the ERO to assign a severe violation severity level to Requirement R3.

Para 311

"direct the ERO to assign a severe violation severity level to Requirement R3."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on 4/19/2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on 4/19/2010

DIRECTIVE: S- Ref 10742 - direct the ERO to file the new violation severity levels described in our discussion no later than 30 days after the date of this Final Rule

Para 312

"direct the ERO to file the new violation severity levels described in our discussion no later than 30 days after the date of this Final Rule"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Compliance filing on 4/19/2010

Status: Filed Delivery: 2010

Solution Details:

Compliance filing on 4/19/2010

DIRECTIVE: S- Ref 10714 - and direct the ERO to modify PRC-023-1 to apply an add in approach to certain sub-100 kV facilities that Regional Entities have already identified or will identify in the future as critical facilities for the purposes the Compliance Registry.

Para 47

"and direct the ERO to modify PRC-023-1 to apply an add in approach to certain sub-100 kV facilities that Regional Entities have already identified or will identify in the future as critical facilities for the purposes the Compliance Registry."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Criteria defined in Attachment B

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by adding the criteria defined in Attachment B that will be applied consistently by each Planning Coordinator to determine the circuits in its Planning Coordinator area for which Transmission Owners, Generator Owners, and Distribution Providers must comply with the standard.

DIRECTIVE: S- Ref 10715 The Commission directs the ERO to modify Requirement R3 of the Reliability Standard to include the test that planning coordinators must use to identify sub-200 kV facilities that are critical to the reliability of the bulk electric system.

Para 47 Sen 3

"Para 47 - As discussed more fully below, we decline to direct the ERO to adopt the rule out approach for 100 kV-200 kV facilities. However, we adopt the NOPR proposal and direct the ERO to modify PRC-023-1 to apply an add in approach to certain sub-100 kV facilities that Regional Entities have already identified or will identify in the future as critical facilities for the purposes the Compliance Registry. Finally, we direct the ERO to modify Requirement R3 of the Reliability Standard to include the test that planning coordinators must use to identify sub-200 kV facilities that are critical to the reliability of the bulk electric system."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

DIRECTIVE: S- Ref 10716 - we direct the ERO to modify Requirement R3 of the Reliability Standard to specify the test that planning coordinators must use to identify all critical facilities.

Para 50

"we direct the ERO to modify Requirement R3 of the Reliability Standard to specify the test that planning coordinators must use to identify all critical facilities."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10718 - We also direct that additions to the Regional Entities critical facility list be tested for their applicability to PRC-023-1 and made subject to the Reliability Standard as appropriate.

Para 60

"We also direct that additions to the Regional Entities critical facility list be tested for their applicability to PRC-023-1 and made subject to the Reliability Standard as appropriate."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10717 - and direct the ERO to modify PRC-023-1 to apply an add in approach to sub-100 kV facilities that are owned or operated by currently-Registered Entities or entities that become Registered Entities in the future, and are associated with a facility that is

Para 60

"and direct the ERO to modify PRC-023-1 to apply an add in approach to sub-100 kV facilities that are owned or operated by currently-Registered Entities or entities that become Registered

Entities in the future, and are associated with a facility that is included on a critical facilities list defined by the Regional Entity."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10719 - direct the ERO to file its test, and the results of applying the test to a representative sample of utilities from each of the three Interconnections, for Commission approval no later than one year from the date of this Final Rule.

Para 69

"direct the ERO to file its test, and the results of applying the test to a representative sample of utilities from each of the three Interconnections, for Commission approval no later than one year from the date of this Final Rule."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10720 - we direct the ERO to modify Requirement R3 of the Reliability Standard to specify the test that planning coordinators must use to determine whether a sub-200 kV facility is critical to the reliability of the Bulk-Power System.

Para 69

"we direct the ERO to modify Requirement R3 of the Reliability Standard to specify the test that planning coordinators must use to determine whether a sub-200 kV facility is critical to the reliability of the Bulk-Power System."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

Criteria defined in Attachment B

Status: Filed Delivery: 2011

Solution Details:

The drafting team addressed this directive by adding the criteria defined in Attachment B that will be applied consistently by each Planning Coordinator to determine the circuits in its Planning Coordinator area for which Transmission Owners, Generator Owners, and Distribution Providers must comply with the standard.

DIRECTIVE: S- Ref 10721 - the ERO must develop a test that: (a) defines expectations of desirable system performance; and (b) describes the steady state and dynamic base cases that the planning coordinator must use in its assessments to carry out Requirement R3. The goal of the

Para 80

"the ERO must develop a test that: (a) defines expectations of desirable system performance; and (b) describes the steady state and dynamic base cases that the planning coordinator must use in its assessments to carry out Requirement R3. The goal of the test must be consistent with the general reliability principles embedded in the existing series of TPL, Transmission Operations (TOP), Reliability Coordination (IRO), and Protection and Control (PRC) Reliability Standards."

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD

DIRECTIVE: S- Ref 10722 - We agree that such a mechanism is appropriate and direct the ERO to develop an appeals process (or point to a process in its existing procedures) and submit it to the Commission no later than one year after the date of this Final Rule

Para 97

"We agree that such a mechanism is appropriate and direct the ERO to develop an appeals process (or point to a process in its existing procedures) and submit it to the Commission no later than one year after the date of this Final Rule"

Assigned: Project 2010-13.1 - Phase 1 of Relay Loadability Order 733

ROP Section 1700

Status: Filed Delivery: 2011

Solution Details:

NERC addressed this directive by developing the proposed NERC Rules of Procedure Section 1700 Challenges to Determinations. Section 1700 provides an appeals process for challenging criticality determinations made by Planning Coordinators under the proposed PRC-023-2 Reliability Standard.

FERC-Order Directing NERC to Propose Modification of ERO RoPs-Docket No. RR09-6

Issued 3/18/2010

DIRECTIVE: S- Ref 10123 - Para 26 we direct the ERO to propose a modification to its Rules of Procedure and the Standards Development Process to ensure that the ERO can comply with a Commission directive to develop a new or modified Reliability Standard pursuant

Para 26

"26.As discussed above, the Commission stated in Order No. 672 that it would take appropriate action if the ERO fails to comply with a Commission order requiring that a Reliability Standard be developed or modified as necessary to maintain reliability. The Commission in Order No. 672 also indicated that it would determine appropriate Commission action regarding the ERO on a case-by-case basis. In this case, we believe that it is appropriate in the first instance to require that the ERO develop a prospective remedy to ensure future compliance. Thus, we direct the ERO to propose a modification to its Rules of Procedure and the Standards Development Process to ensure that the ERO can comply with a Commission directive to develop a new or modified Reliability Standard pursuant to section 215(d)(5) of the FPA. However, we will leave it to the discretion of the ERO to submit detailed proposed rule changes on which the public may comment. The Commission will notice the proposed changes and will issue an order on proposed modifications after consideration of the comments. NERC is directed to submit detailed proposed rule changes within 90 days of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Fixes based on legal review - cook, dressel, heenan

DIRECTIVE: S- Ref 10122 - Para 29. Moreover, consistent with the Commissions regulations, we direct the ERO, within 90 days of our subsequent order on proposed modifications to the EROs rules, to comply with the Commissions directive in Order No. 693 to modify Relia

Para 29

"29.Moreover, consistent with the Commissions regulations, we direct the ERO, within 90 days of our subsequent order on proposed modifications to the EROs rules, to comply with the Commissions directive in Order No. 693 to modify Reliability Standard FAC-008-1. As explained in greater detail in Order No. 693, the required modifications include (1) document underlying assumptions and methods used to determine normal and emergency facility ratings; (2) develop facility ratings consistent with industry standards developed through an open, transparent and validated process; and (3) for each facility, identify the limiting component and, for critical facilities, the resulting increase in rating if that component is no longer limiting."

Assigned: Project 2009-06 - Facility Ratings

Fixes from July 7, 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, heenan, dressel

FERC-Order Setting Deadline for Compliance-Docket No. RM06-16-009

Issued 3/18/2010

DIRECTIVE: S- Ref 10705 - directed to submit a modification to Table I, footnote b of Reliability Standard TPL-002-0 that complies with the Commissions directive in Order No. 693, by June 30, 2010.

Para 8

"directed to submit a modification to Table I, footnote b of Reliability Standard TPL-002-0 that complies with the Commissions directive in Order No. 693, by June 30, 2010."

Assigned: Project 2010-11 - TPL Table 1 Order

Alternative filed within deadline.

Status: Filed Delivery: 2011

Solution Details:

Alternative approach filed within deadline.

Fixes from July 7, 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, dressel, heenan

FERC-Order Addressing Compliance Filing and Approving Implementation Plan

Issued 3/18/2010

DIRECTIVE: S- Ref 10706 - directs NERC to make a compliance filing submitting implementation plans for the implementation of Versions 2 and 3 of the CIP Standards by owners and operators of U.S. nuclear power plants on the same schedule established for Version 1 under the Implem

Para 2

"directs NERC to make a compliance filing submitting implementation plans for the implementation of Versions 2 and 3 of the CIP Standards by owners and operators of U.S. nuclear power plants on the same schedule established for Version 1 under the Implementation Plan."

Assigned: Project 2010-09 - Cyber Security Order 706B — Nuclear Plant Implementation Plan

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10707 - should NERC become aware that it will be unable to complete the scope of systems determinations within NERCs projected timeframe (R + 8 months), NERC must timely notify the Commission of the reason for the delay and propose an alternate deadline.

Para 20

"should NERC become aware that it will be unable to complete the scope of systems determinations within NERCs projected timeframe (R + 8 months), NERC must timely notify the Commission of the reason for the delay and propose an alternate deadline."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

FERC-Order Addressing VSL Assignments for CIP Reliability Standards-Docket No. RM06-22-008

Issued 3/18/2010

DIRECTIVE: S- Ref 10708 - directs NERC to submit a compliance filing modifying 57 sets of Violation Severity Level assignments within 60 days of the issuance of this order, as discussed below

Para 1

"directs NERC to submit a compliance filing modifying 57 sets of Violation Severity Level assignments within 60 days of the issuance of this order, as discussed below"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10709 - direct NERC to revise seventeen sets of Violation Severity Level assignments, specified in the Appendix, to address interdependency concerns discussed above

Para 23

"direct NERC to revise seventeen sets of Violation Severity Level assignments, specified in the Appendix, to address interdependency concerns discussed above"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10710 - directs NERC to revise specific Violation Severity Level assignments, specified in the Appendix, to address the concern described above about levels of non-compliance.

Para 27

"directs NERC to revise specific Violation Severity Level assignments, specified in the Appendix, to address the concern described above about levels of non-compliance."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10711 - directs NERC to remove the extraneous language concerning the date of training.

Para 32

"directs NERC to remove the extraneous language concerning the date of training."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

DIRECTIVE: S- Ref 10712 - directs the ERO to revise certain Violation Severity Level assignments to remove ambiguity and improve consistency, as set forth in the Appendix.

Para 33

"directs the ERO to revise certain Violation Severity Level assignments to remove ambiguity and improve consistency, as set forth in the Appendix."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Resolved

Status: Filed Delivery: 2010

Solution Details:

Resolved

FERC-Order Granting Rehearing for Further Consideration and Scheduling Technical Conference-Docket No. RM06-16-011

Issued 5/13/2010

DIRECTIVE: S- Ref 10743 - direct that the ERO submit, within 30 days after the technical conference, a proposed schedule that includes interim targets for completing studies and analyses needed to develop a frequency response requirement, and a firm compliance deadline for submit

Para 15

"direct that the ERO submit, within 30 days after the technical conference, a proposed schedule that includes interim targets for completing studies and analyses needed to develop a frequency response requirement, and a firm compliance deadline for submission of a modified Reliability Standard that is responsive to the Commission directives in Order No. 693 pertaining to Reliability Standard BAL-003-0"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2010

Solution Details:

Based on legal review - cook, heenan, dressel

FERC-Order on the Electric Reliability Organization's Three-year Performance Assessment Issued 9/16/2010

DIRECTIVE: S- Ref 10744 - We direct NERC to consider the following practices for use during the Standards development process as possible means to accomplish these objectives: (1) posting proposed regional Reliability Standards for comment from the continent-wide pool of interested stakeholders for consideration, while allowing the regional open processes to make final determinations to be submitted to NERC; (2) providing for comments from NERC technical staff on proposed regional Reliability Standards; and (3) including regional Reliability Standards in other NERC review processes that it uses for continent-wide Reliability Standards. We further direct NERC to discuss its considerations regarding these suggestions in the informational filing due six months from the date of this order.

Due 3/16/2011

para 76

"Directs NERC to consider the following practices for use during the Standards development process as possible means to accomplish these objectives: (1) posting proposed regional Reliability Standards for comment from the continent-wide pool of interested stakeholders for consideration, while allowing the regional open processes to make final determinations to be submitted to NERC; (2) providing for comments from NERC technical staff on proposed regional Reliability Standards; and (3) including regional Reliability Standards in other NERC review processes that it uses for continent-wide Reliability Standards. We further direct NERC to discuss its considerations regarding these suggestions in the informational filing due six months from the date of this order."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2011

Solution Details:

Based on review by Cook, Heenan, Dressel

DIRECTIVE: S- Ref 10745 - Directs NERC to submit quarterly reports for an additional three years from the date of the order. In addition to the contents described in the January 2007 order, the quarterly reports must include separate analyses of: (i) the time required to complete projects (i.e., 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.

para 85

"Renews the directive that NERC submit quarterly reports on standards development for additional three years, with additional detail of required analysis."

Assigned: Project Standards Internal - For directives unrelated to specific standards

FERC-Revision to ERO Definition of BES (Order 743)

Issued 11/18/2010

DIRECTIVE: S- Ref 10746 - Directs (hard) NERC to create an exemption process

Due 1/25/2012

Para 112

"Rather than devising a revised exemption process in the Final Rule, we direct the ERO to develop a proposed exemption process."

Assigned: Project 2010-17 - Definition of Bulk Electric System

In an effort parallel to Project 2010-17, a separate team has revised the ERO Rules of Procedure (RoP) to allow for entities to request an exemption from inclusion in the BES due to the revised definition.

Status: Filed Delivery: 2012

Solution Details:

In an effort parallel to Project 2010-17, a separate team has revised the ERO Rules of Procedure (RoP) to allow for entities to request an exemption from inclusion in the BES due to the revised definition. This same process allows for an entity such as a Planning Coordinator or the Regional Entity to request the inclusion of specific elements that may otherwise have been excluded from the BES. This process change was posted for industry comment in a manner consistent with the NERCs Bylaws and Rules of Procedure.

The Project 2010-17 SDT has established the criteria for applying for an exception to the definition. The criteria were developed within the Standards Development Process.

DIRECTIVE: S- Ref 10747 - Directs (hard) NERC to work with Regions to develop transition plans

Due 1/25/2012

Para 131

"We direct NERC to work with the Regional Entities affected by this Final Rule to submit for Commission approval transition plans that allow a reasonable period of time for the affected entities within each region to achieve compliance with respect to facilities that are subject to Commission-approved Reliability Standards for the first time based on a revised bulk electric system definition."

Assigned: Project 2010-17 - Definition of Bulk Electric System

The Implementation Plan for Project 2010-17 allows for NERC to work with the Regional Entities and for the Regional Entities to work with affected entities on transition plans for achieving compliance with the revised definition. However, the SDT is suggesting a 24 month period for transition.

Status: Filed Delivery: 2012

Solution Details:

The SDT believes that this longer timeframe is needed to:

Effectively produce reasonable transition plans As shown in Order 743, part of the overall process of revising the definition of BES is for the ERO and Regional Entities to develop transition plans on a region by region basis to accommodate any changes needed in those regions due to the revised definition. The transition plans will include any actions necessary for entities to achieve compliance on any issues brought about by the revised definition.

Submit any necessary registration changes While Order 743 states that a revised definition should provide clarity and not necessarily require major changes to registration; it is possible that the revised definition may cause some registration changes. Entities will need time to submit their changes and for those changes to work their way through the process. Entities will also need time to come in to compliance with any applicable standards due to their registration changes.

File for exceptions The revised definition does not exist in a vacuum. There is a corresponding process for entities to request exceptions for specific equipment or configurations. This process will be defined in the NERC Rules of Procedure and will involve individual entities or the Regional Entities having to make a technical case to justify the exception. This process will take some time to complete and it would be expected that there will be an initial backlog of cases to process.

Provide training Entities will need to train their operators and personnel on changes to their operations brought about by the revised definition.

DIRECTIVE: S- Ref 10748 - Directs (soft) NERC to use the Standards Development Process to revise the

Due 1/25/2012

Para 16

"The Commission directs the ERO to revise the definition of bulk electric system through the NERC Standards Development Process to address the Commissions concerns discussed herein."

Assigned: Project 2010-17 - Definition of Bulk Electric System

Project 2010-17 was established to address the directives contained in FERC Order 743 utilizing the approved Standard Development Process, which includes the drafting of a Standards Authorization Request (SAR), nominations for a Standards Drafting Team (SDT), interim postings, and balloting. The Standards Development process has been faithfully observed and followed with no deviations.

Status: Filed Delivery: 2012

Solution Details:

The SDT has deleted the phrase As defined by the Regional Reliability Organization from the definition to eliminate the regional discretion that currently exists.

The SDT has established a clear, bright-line definition of the BES with clearly defined inclusions and exclusions which will eliminate regional variations in the application of the definition.

The SDT has maintained the status quo with respect to the voltage threshold for the BES. The revised definition applies to all Transmission Elements operated at 100 kV or above while clearly carving out an exclusion for defined radial facilities.

Bulk Electric System (BES): Unless modified by the lists shown below, all Transmission Elements operated at 100 kV or higher and Real Power and Reactive Power resources connected at 100 kV or higher. This does not include facilities used in the local distribution of electric energy.

E1 - Radial systems: A group of contiguous transmission Elements that emanates from a single point of connection of 100 kV or higher and:

a) Only serves Load. Or,

b) Only includes generation resources, not identified in Inclusion I3, with an aggregate capacity less than or equal to 75 MVA (gross nameplate rating). Or,

c) Where the radial system serves Load and includes generation resources, not identified in Inclusion I3, with an aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating).

Note A normally open switching device between radial systems, as depicted on prints or one-line diagrams for example, does not affect this exclusion.

In an effort parallel to Project 2010-17, a separate team has revised the ERO Rules of Procedure (RoP) to allow for entities to request an exemption from inclusion in the BES due to the revised definition. This same process allows for an entity such as a Planning Coordinator or the Regional Entity to request the inclusion of specific elements that may otherwise have been excluded from the BES. This process change was posted for industry comment in a manner consistent with the Standards Development Process.

The Project 2010-17 SDT has established the criteria for applying for an exception to the definition. The criteria were developed within the Standards Development Process.

DIRECTIVE: S- Ref 10749 - Directs (hard) the ERO to modify the definition of BES

Due 1/25/2012

Para 30

"Therefore, pursuant to section 215(d)(5) of the FPA,³⁸ the Commission directs the ERO to modify, through the Standards Development Process, the definition of bulk electric system to address the Commissions technical and policy concerns described more fully herein."

Assigned: Project 2010-17 - Definition of Bulk Electric System

Project 2010-17 has revised the NERC Glossary definition of the Bulk Electric System (BES) to provide clarity as described in Order 743.

Status: Filed Delivery: 2012

Solution Details:

The SDT has deleted the phrase As defined by the Regional Reliability Organization from the definition to eliminate the regional discretion that currently exists.

The SDT has established a clear, bright-line definition of the BES with clearly defined inclusions and exclusions which will eliminate regional variations in the application of the definition.

The SDT has maintained the status quo with respect to the voltage threshold for the BES. The revised definition applies to all Transmission Elements operated at 100 kV or above while clearly carving out an exclusion for defined radial facilities.

Bulk Electric System (BES): Unless modified by the lists shown below, all Transmission Elements operated at 100 kV or higher and Real Power and Reactive Power resources connected at 100 kV or higher. This does not include facilities used in the local distribution of electric energy.

E1 - Radial systems: A group of contiguous transmission Elements that emanates from a single point of connection of 100 kV or higher and:

a) Only serves Load. Or,

b) Only includes generation resources, not identified in Inclusion I3, with an aggregate capacity less than or equal to 75 MVA (gross nameplate rating). Or,

c) Where the radial system serves Load and includes generation resources, not identified in Inclusion I3, with an aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating).

Note - A normally open switching device between radial systems, as depicted on prints or one-line diagrams for example, does not affect this exclusion.

In an effort parallel to Project 2010-17, a separate team has revised the ERO Rules of Procedure (RoP) to allow for entities to request an exemption from inclusion in the BES due to the revised definition. This same process allows for an entity such as a Planning Coordinator or the Regional Entity to request the inclusion of specific elements that may otherwise have been excluded from the BES. The SDT has also established the criteria for applying for an exception to the definition. The criteria were developed within the Standards Development Process.

DIRECTIVE: S- Ref 10750 - Directs (soft) NERC to consider comments on radial facilities

Due 1/25/2012

Para 55

"55. As we stated in the NOPR, we do not seek to modify the second part of the definition through this Final Rule, which states that [r]adial transmission facilities serving only load with one transmission source are generally not included in this definition. While commenters would like to expand the scope of the term radial to exclude certain transmission facilities such as tap lines and secondary feeds via a normally open line, we are not persuaded that such categorical exemption is warranted. For example, when the normally open line is closed, it becomes part of the transmission network and therefore should be subject to mandatory Reliability Standards. Commenters also argued that the bright line 100 kV threshold would encourage small utilities to choose not to provide backup service options, reducing overall customer service. We acknowledge these concerns, and direct the ERO to consider these comments regarding radial facilities in crafting an exemption methodology."

Assigned: Project 2010-17 - Definition of Bulk Electric System

The SDT has retained and clarified the radial exclusion as shown in Exclusion E1 of the proposed definition.

Status: Filed Delivery: 2012

Solution Details:

E1 - Radial Systems: A group of contiguous transmission Elements that emanates from a single point of connection of 100 kV or higher and:

a) Only serves Load. Or,

b) Only includes generation resources, not identified in Inclusion I3, with and aggregate capacity less than or equal to 75 MVA (gross nameplate rating). Or,

c) Where the radial system serves Load and includes generation resources, not identified in Inclusion I3, with an aggregate capacity of non-retail generation less than or equal to 75 MVA (gross nameplate rating).

Note - A normally open switching device between radial systems, as depicted on prints or one-line diagrams for example, does not affect this exclusion.

The SDT has included the note on normally open switches to address a common network configuration that required clarity. Such switches are installed by entities to provide greater reliability to end-use customers. For example, maintenance situations could cause the disruption of power to an end-use customer on a radial line unless the entity has the ability to switch over to another feed on a temporary basis. Existing Operating Procedures dictate how and when to operate such a switch. Operation of such switches is not an arbitrary process and reliability of service to end-use customers drives the process. There are definite ramifications for improper and/or overly-prolonged use of such switches. It would seem unfair to all concerned, entities and end-use customers, and contrary to overall BES reliability to deny the radial exclusion in such a situation.

In crafting E1b and following through with this concept in E1c, the SDT directly addresses the issue of small utilities as expressed in the Order. The amount of generation allowed on the radial facility is sufficient to allow small utilities to continue to provide service options that support reliability of the interconnected electric transmission system while not excluding large generators from the BES. The amount of generation shown is consistent with the aggregate capacity threshold presently shown in the ERO Statement of Compliance Registry Criteria.

FERC-System Personnel Training Reliability Standards (Order 742)

Issued 11/18/2010

DIRECTIVE: S- Ref 10781 - Directs (soft) us to consider developing a flexible implementation plan for PER-005-1 R3.1

Para 24

"With respect to EEs comment regarding the effective date for entities that may become, in the future, subject to the simulator training requirement in PER-005-1, R3.1, the Commission believes that this issue should be considered by the ERO. We note that, with respect to the Critical Infrastructure Protection (CIP) Reliability Standards, NERC has developed a separate implementation plan that essentially gives responsible entities some lead time before newly acquired assets must be in compliance with the effective CIP Reliability Standards. We direct NERC to consider the necessity of developing a similar implementation plan with respect to PER-005-1, Requirement R3.1."

Assigned: Project 2010-01 - Support Personnel Training

DIRECTIVE: S- Ref 10783 - The Commission directs NERC to develop a definition of local transmission control center in the standards development project for developing the training requirements for local transmission control center operator personnel.

Para 64

"Accordingly, we adopt our NOPR proposal and direct the ERO to develop through a separate Reliability Standards development project formal training requirements for local transmission control center operator personnel. Finally, given the numerous comments stating that term local transmission control center should be defined, we direct NERC to develop a definition of local transmission control center in the standards development project for developing the training requirements for local transmission control center operator personnel. We will not evaluate Associated Electric's proposed definition but, rather, leave it to the ERO to develop an appropriate definition that reflects the scope of local transmission control centers. The Commission will not opine on the appropriate definition of local transmission control center, as this definition can be addressed first using NERC's Reliability Standards Development Procedures."

Assigned: Project 2010-01 - Support Personnel Training

DIRECTIVE: S- Ref 10782 - The Commission directs NERC to develop formal training requirements for local transmission control center operator personnel.

Para 64

"Accordingly, we adopt our NOPR proposal and direct the ERO to develop through a separate Reliability Standards development project formal training requirements for local transmission control center operator personnel. Finally, given the numerous comments stating that term local transmission control center should be defined, we direct NERC to develop a definition of local transmission control center in the standards development project for developing the training requirements for local transmission control center operator personnel. We will not evaluate Associated Electric's proposed definition but, rather, leave it to the ERO to develop an appropriate definition that reflects the scope of local transmission control centers. The Commission will not opine on the appropriate definition of local transmission control center, as this definition can be addressed first using NERC's Reliability Standards Development Procedures..

Additional Info from Para 63

In its comments, NERC has said that it intends to generally model local control center operating personnel training on PER-005-1. Thus, we expect that the Reliability Standard that is developed will require training for local transmission control center that does not significantly diverge from the training requirements set

forth in PER-005-1. If the ERO proposes a Reliability Standard that differs significantly from the approved PER-005-1 requirements, NERC must provide in its petition seeking approval of such future standard, adequate technical analysis supporting the different approach."

Assigned: Project 2010-01 - Support Personnel Training

DIRECTIVE: S- Ref 10784 - The Commission encourages NERC to complete its generic performance measures project.

Para 70

"70.The Commission believes that performance metrics should be developed to gauge the effectiveness of a Reliability Standard if it is feasible to do so. We are pleased that NERC is working to develop performance measures that will address reliability standards in general. Based on the comments, it appears that it may be infeasible or, at a minimum, impracticable to develop performance metrics for some individual Reliability Standards; e.g., PER-005-1. However, we find that, based on this project, NERC is already in the process of evaluating the feasibility of developing meaningful performance metrics to evaluate the effectiveness of PER-005-1. The Commission encourages NERC to complete its generic performance measures project."

Assigned: Project NERC - PA - Performance Analysis

FERC-Letter Order Approving VSLs for FAC-014-2 in Dockets RM08-11-002 and RM08-11-003 Issued 12/7/2010

DIRECTIVE: S- Ref 10835 The Commission directs NERC to submit a compliance filing containing the corrections noted in Appendix A of the letter Order issued on December 7, 2010 approving VSLs for FAC-014 -2 in Dockets RM08-11-002 and RM08-11-003 within 30 days of the date of the order.

Due 1/6/2011

Para 006

"Para 006

We accept NERC's May 29, 2009 and July 6, 2009 filings as in compliance with our directives in Order No. 722. We agree with TANC that NERC should revise the violations severity levels to correct the typographical inconsistencies identified by TANC. Accordingly, we direct NERC to submit a compliance filing containing the corrections noted in Appendix A within 30 days of the date of this order.

Para 004

Notice of the May 29, 2009 filing was published in the Federal Register, 74 Fed. Reg. 29,206 (2009) with comments, protests or motions to intervene due on or before July 6, 2009. Transmission Agency of Northern California (TANC) filed comments in which TANC identified several typographical inconsistencies. These typographical errors are identified in Attachment A to this letter order.

"

Assigned: Project Legal - For directives that can be addressed by Legal

Filing complying with directive made

Status: Filed Delivery: 2011

Solution Details:

Changes made as requested.

FERC-Order Approving Reliability Standards in Docket RD10-04-000

Issued 1/6/2011

DIRECTIVE: S- Ref 10751 - The Commission directs NERC, in a compliance filing due within 45 days of the date of the order, to identify the entity or entities that are responsible under Reliability Standard BAL-006-2 for calculating Inadvertent Interchange inside the MISO area.

Due 2/21/2011

Para 9, 7, and 8

"Para 9 Therefore, consistent with the above discussion, we direct NERC, in a compliance filing due within 45 days of the date of this order, to identify the entity or entities that are responsible under Reliability Standard BAL-006-2 for calculating Inadvertent Interchange inside the MISO area.

Para 7 As described in its Amended Balancing Authority Agreement, MISO is the Balancing Authority for the MISO footprint. In addition, encompassed within the MISO footprint are smaller Balancing Authorities, termed Local Balancing Authorities, which are also registered by NERC in its compliance registry as Balancing Authorities. MISO and the Local Balancing Authorities operate under a Joint Registration Organization arrangement by which responsibilities for compliance with the Reliability Standards are divided between MISO and the Local Balancing Authorities. In the case of BAL-006-1, which deals with Inadvertent Interchange calculations, MISO is registered with NERC as the responsible entity for compliance with Requirements R1, R2, R4, R4.1, R4.1.1, R4.2, R4.3, and R5 of the Reliability Standard, and certain Local Balancing Authorities are registered with NERC as the responsible entities for compliance with Requirements R3, R4.1, R4.1.2, and R4.3.

Para 8 In practice, MISO performs its compliance responsibilities on a MISO-wide basis under BAL-006-1 (i.e., MISO calculates Inadvertent Interchange between the MISO area and external Balancing Authorities). However, it is not clear from the filing what entity or entities perform the local Balancing Authority responsibilities under BAL-006-1 for the Local Balancing Authorities within the MISO area (i.e., between the Local Balancing Authorities situated inside MISO). Since the Local Balancing Authorities are registered with NERC, they are subject to BAL-006-1, and they are responsible for calculating the Inadvertent Interchange with other Local Balancing Authorities within the MISO footprint. They can contractually delegate this to another entity pursuant to a Joint Registration Organization agreement. However, it is not clear whether such delegation has, in fact, occurred.

"

Assigned: Project Standards Internal - For directives unrelated to specific standards

Fixes from July 7, 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, heenan, dressel

FERC-Order Approving VRFs and VLS for CIP Standards in Dockets RD10-6-000 and RD09-7-002

Issued 1/20/2011

DIRECTIVE: S- Ref 10836 The Commission directs NERC to submit a compliance filing, by March 21, 2011, re-assigning a medium designation to the VRF for CIP-003-2 Requirement R2.

Due 3/21/2011

Para 015

"However, we reject NERCs modification to the VRF for CIP-003-2 Requirement R2. CIP-003-2 specifically imposes the requirement that there be a single senior manager responsible for implementation of, and compliance with, the CIP Reliability Standards. NERC changed the VRF associated with this Requirement R2 from medium to lower without an explanation or justification. As the change in the Reliability Standard CIP-003 Requirement 2 from Version 1 to

Version 2 was only a clarification, it does not warrant a reduction of the approved VRF without justification (Version 2 of CIP-003-002 Requirement 2 differs from Version 1 as follows: Leadership The Responsible Entity shall assign a single senior manager with overall responsibility and authority for leading and managing the entity's implementation of, and adherence to, Standards CIP-002-2 through CIP-009-2.). Guideline 1 requires consistency with the conclusions of the Final Blackout Report, particularly recommendation number 43 to [e]stablish clear authority for physical and cyber security. This recommendation highlights the need to have a single individual ultimately responsible for creation and implementation of policy. Therefore, the Commission directs the ERO to submit a compliance filing, within 60 days of this order, re-assigning a medium designation to this particular VRF, or provide a justification for the reassignment (The Commission also notes that, in its exhibit proposing Version 2 VRFs for approval, NERC displays incorrect text for Reliability Standard CIP-003-2 Requirement R2. We therefore also direct the ERO to correct such inconsistencies in the compliance filing required by this order.)"

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10837 The Commission directs NERC to make specific changes to the Version 2 VSLs for CIP-004-2, CIP-005-2, and CIP-006-2 to conform to the determinations made in the CIP VSL Order for the version 1 CIP standards, based on CIP Guidelines 1 and 2, for parallel Requirement text.

Due 3/21/2011

Para 022

"The Commission applied its prior VSL Guidelines and the new CIP VSL Guidelines in making its determinations on NERCs proposed Version 2 CIP VSLs. As discussed above, in the CIP VSL Order, the Commission established two CIP Guidelines. CIP Guideline 1 addressed the weakest link characteristic, which states that a binary VSL should be applied to Requirements under which a single lapse in protection can compromise computer network security. CIP Guideline 2 addressed cyber security Requirements that contain interdependent tasks. Six of the Requirements addressed by the Version 2 Filing contain identical language or materially similar provisions as the corresponding Version 1 Requirements for which the Commission directed changes to the Version 1 VSLs on the basis of the new CIP Guideline 1. Additionally, nine of the Requirements addressed by the Version 2 Filing contain identical language or materially similar provisions as the corresponding Version 1 Requirements for which the Commission directed changes on the basis of the new CIP Guideline 2. Therefore, we direct corresponding changes to the Version 2 VSLs to conform to the determinations made in the CIP VSL Order, based on CIP Guidelines 1 and 2, for parallel Requirement text. Specifically, we direct modifications as follows: (1) based on CIP Guideline 1, we direct modifications to CIP-004-2 Requirement R2.1, CIP-005-2 Requirement R1.5, and CIP-006-2 Requirements R1.2, R1.5, R2, and R8; and (2) based on CIP Guideline 2, we direct modifications to CIP-004-2 Requirements R1 and R2, CIP-005-2 Requirement R2.3, CIP-006-2 Requirements R1.1, R4, R5, and R6; and CIP-007-2 Requirements R2 and R3."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10838 The Commission directs modifications to CIP-003-2 Requirements R2.1 and R3.2; CIP-004-2 Requirement R3; CIP-006-2 Requirements R1.7, R4, R6, and R7; CIP-007-2 Requirement R2, R2.3, R3, R3.2, R7, and R9; and CIP-008-2 Requirement R1 to remove ambiguity and improve consistency.

Due 3/21/2012

Para 023 Sen 3

"Next, in the CIP VSL Order, the Commission directed modifications to some Version 1 VSLs based on the Commissions VSL Guideline 2(b). For the 14 identical or parallel Version 2 Requirements addressed in the Version 2 Filing, we likewise direct changes to the corresponding VSL submissions to remove ambiguity and improve consistency. Specifically, we direct modification to CIP-003-2 Requirements R2.1 and R3.2; CIP-004-2 Requirement R3; CIP-006-2 Requirements R1.7, R4, R6, and R7; CIP-007-2 Requirement R2, R2.3, R3, R3.2, R7, and R9; and CIP-008-2 Requirement R1. In addition, CIP-006-2 Requirement R3 contains an entirely new provision to which VSL Guideline 2(b) applies. NERC proposed a binary (therefore severe) VSL when a cyber asset that is used in access control or monitoring of an electronic security perimeter fails to reside in an identified physical security perimeter, as the new R3 requires. The Commissions VSL Guideline 2(b) provides that, to better ensure consistency and uniformity in the determination of penalties, Violation Severity levels assignments should not contain ambiguous language. For clarity, under VSL Guideline 2(b), we direct a modification of the VSL to directly track the language of the new R3, as illustrated in Appendix 1."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10839 The Commission directs a modification of the VSL for CIP-006-2 Requirement R3 to directly track the language of the new R3 as illustrated in Appendix 1 to the FERC Order Approving VRFs and VLS for CIP Standards in Dockets RD10-6-000 and RD09-7-002 issued January 20, 2011.

Due 3/21/2011

Para 023 Sen 7

"Next, in the CIP VSL Order, the Commission directed modifications to some Version 1 VSLs based on the Commissions VSL Guideline 2(b). For the 14 identical or parallel Version 2 Requirements addressed in the Version 2 Filing, we likewise direct changes to the corresponding VSL submissions to remove ambiguity and improve consistency. Specifically, we direct modification to CIP-003-2 Requirements R2.1 and R3.2; CIP-004-2 Requirement R3; CIP-006-2 Requirements R1.7, R4, R6, and R7; CIP-007-2 Requirement R2, R2.3, R3, R3.2, R7, and R9; and CIP-008-2 Requirement R1. In addition, CIP-006-2 Requirement R3 contains an entirely new provision to which VSL Guideline 2(b) applies. NERC proposed a binary (therefore severe) VSL when a cyber asset that is used in access control or monitoring of an electronic security perimeter fails to reside in an identified physical security perimeter, as the new R3 requires. The Commissions VSL Guideline 2(b) provides that, to better ensure consistency and uniformity in the determination of penalties, Violation Severity levels assignments should not contain ambiguous language. For clarity, under VSL Guideline 2(b), we direct a modification of the VSL to directly track the language of the new R3, as illustrated in Appendix 1."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10840 The Commission directs a specific modification to the VSL for CIP-009-2 Requirement R3, as illustrated in Appendix 1 to the FERC Order Approving VRFs and VLS for CIP Standards in Dockets RD10-6-000 and RD09-7-002 issued January 20, 2011.

Due 3/21/2011

Para 024

"Additionally, the CIP VSL Order addressed gradation of VSLs based on the timeliness of compliance for deadline-driven Requirements, and directed modifications to several Version 1 VSLs based on this VSL gradation discussion. Here, Version 2 CIP-009-2 Requirement R3 proposes

the same characteristic: gradation according to the length of time in which an entity is not compliant. Again, our determination is that the magnitude of non-compliance allowed by NERCs proposed gradations for this requirement before reaching the severe level, in light of the lack of applicable historical compliance data that proves otherwise, leads us to conclude that the proposed Violation Severity Level assignments for CIP-009-2 Requirement R3 would condone a greater level of non-compliance than is appropriate. Therefore, we direct modifications to CIP-009-2 Requirement R3 based on the same rationale, as illustrated in Appendix 1."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10841 The Commission directs specific modifications to the following VSLs: CIP-004-2 Requirements R1 and R2, CIP-006-2 Requirement R1.1, CIP-006-2 Requirement R1.2, and CIP-007-2 Requirement R9.

Due 3/21/2011

Para 025

"Further, the Commission identified five requirements in the Version 2 filing that should be revised to be consistent with new and prior Commission VSL guidelines but which were not revised by the CIP VSL Order. The Commission directs the modification illustrated in Appendix 1, on the basis of the guidelines noted. Specifically, addressing the topics of essential training programs and securing physical boundaries, the following requirements should be modified due to their multiple interdependent parts, in accordance with CIP VSL Guideline 1: CIP-004-2 Requirements R1 and R2, and CIP-006-2 Requirement R1.1. CIP-006-2, Requirement R1.2 contains the weakest link characteristic because it addresses the need for all access points on the physical security perimeter to be protected. CIP-007-2, Requirement R9, concerning annual review of system security management documentation, is directed for modification under VSL Guideline 2(b) to replace the term nor with and, consistent with the discussion in the March 18 Order."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10842 The Commission directs the ERO to modify the VSLs for CIP-007-2 Requirements R2.3 and R3.2, as illustrated in Appendix 1 to the FERC Order Approving VRFs and VLS for CIP Standards in Dockets RD10-6-000 and RD09-7-002 issued January 20, 2011.

Due 3/21/2011

Para 026

"The Version 2 Filing does not include proposed VSLs for CIP-007-2 Requirements R2.3 and R3.2. To comply with Order No. 706, NERCs Version 2 CIP Reliability Standards removed the acceptance of risk language from these two Requirements. However, the same language was not removed from the corresponding VSL language. The Commission directs the ERO to modify the VSLs for these Requirements, as illustrated in Appendix 1. While NERC may propose alternate VSL text in the future, the VSL language for Requirements R2.3 and R3.2 provided in Appendix 1 is approved to be effective on April 1, 2010, along with the other Version 2 VSLs modified and approved by this order, until the Commission approves an alternative proposal."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10843 The Commission directs NERC to provide, by March 21, 2011, a complete list of all Version 2 CIP Reliability Standard Requirements, and their associated VSLs and VRFs, as determined or carried forward by the FERC Order Approving VRFs and VLS for CIP Standards in Dockets RD10-6-000 and RD09-7-002 issued January 20, 2011.

Due 3/21/2011

Para 027

"The Commission notes the Complete Matrix of VSLs for Approved Reliability Standards submitted by NERC contains only the CIP Reliability Standard Requirements proposed for modification and omits the unchanged Version 1 VSLs, which NERC requests be carried forward. The Commission directs NERC to provide, within 60 days, a complete list of all Version 2 CIP Reliability Standard Requirements, and their associated VSLs and VRFs, as determined or carried forward by this order."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

DIRECTIVE: S- Ref 10844 The Commission directs specific modifications for the ERO to revise its proposed VSL for CIP-006-3 Requirement R1.6 as shown in Appendix 2 of the FERC Order Approving VRFs and VLS for CIP Standards in Dockets RD10-6-000 and RD09-7-002 issued January 20, 2011, and to add rows containing N/A for the new sub-requirements R1.6.1 and R1.6.2, consistent with how NERC has treated similar sub-requirements

Due 3/21/2011

Para 032

"With regard to the omitted VSL sets noted above, for the newly created CIP 006 3 Requirements R1.6.1 and R1.6.2, NERC's filing appears to suggest that these new sub-requirements should be addressed by the VSLs proposed for the parent requirement, CIP-006-3 Requirement R1.6. We note that NERC originally assigned a binary VSL to the precursor parent requirement, CIP-006-1 Requirement R1.6, and we agree that this designation continues to be appropriate. The sub-requirements should follow suit because they are minimum components of the parent requirement. Each of the component sub-requirements is necessary to uphold compliance with the parent requirement. Therefore, treating the sub-requirements through the VSLs of the parent requirement is appropriate. The Commission therefore directs the ERO to revise its proposed VSL for CIP-006-3 Requirement R1.6 as shown in Appendix 2, and to add rows containing N/A for the new sub-requirements R1.6.1 and R1.6.2, consistent with how NERC has treated similar sub-requirements."

Assigned: Project Legal - For directives that can be addressed by Legal

Compliance filing made

Status: Filed Delivery: 2011

Solution Details:

Filing made compliant with Commission guidance.

FERC-System Restoration (Order 749)

Issued 3/17/2011

DIRECTIVE: S- Ref 10785 - Once the Standard is effective, if industry determines that ambiguity with the term arises, it would be appropriate for NERC to consider its proposal to develop a guideline to aid entities in their compliance obligations.

Para 24 and 18

"Paragraph 24 - Both EEI and APPA recognize potential benefit in the development of further guidance as to the term unique tasks, and BPA is uncertain as to the meaning of the term and consequently unsure as to how to demonstrate compliance with its training obligation. NERC, in its comments about the term, states that it could promote the development of a guideline to aid registered entities in complying with Requirement R11. The Commission notes that this

Reliability Standard will not become effective for at least 24 months, during which time ambiguities in language or differences of opinion among affected entities may be resolved in practical ways. Once the Standard is effective, if industry determines that ambiguity with the term arises, it would be appropriate for NERC to consider its proposal to develop a guideline to aid entities in their compliance obligations.

Note: Paragraph 24 is referring to Requirement R11 of EOP-005-2 that requires a minimum of two hours of system restoration training be provided every two years to field switching personnel performing unique tasks associated with the transmission operators restoration plan (i.e., Vagueness of Term Unique Tasks).

Paragraph 18 - Requirement R11 of EOP-005-2 requires that a minimum of two hours of system restoration training be provided every two years to field switching personnel performing unique tasks associated with the transmission operators restoration plan. In the NOPR, the Commission expressed concern that the applicable entities may not understand what the term unique tasks means. We requested comment on what is intended by that term and on whether guidance should be provided to the transmission operators, transmission owners, and distribution providers who are responsible for providing training. In addition, the NOPR sought comment as to whether the unique tasks should be identified in each transmission operators restoration plan.

”

Assigned: Project EOP-005 - Five Year Review

DIRECTIVE: S- Ref 10786 - NERC should close the gap in the applicability of the draft COM-001-2 so it addresses generation operators and distribution providers.

Para 28

”Paragraph 28 - NERC notes in its comments that the Reliability Coordination Standard Drafting Team is currently working on Project 2006-06 to develop a set of revisions to Reliability Standard COM-001-1.1 to tighten requirements relating to communication capabilities. The Commission believes the objectives of this project in managing, alarming, testing and/or actively monitoring vital primary and emergency telecommunication facilities will close this gap in the Reliability Standard after it is completed and approved. Accordingly, consistent with NERCs comments on its current project and concerns not to create redundancy in development of Reliability Standards, NERC should close the gap in the applicability of the draft COM-001-2 so it addresses generation operators and distribution providers.

Paragraph 27 - Reliability Standard COM-001-1 does not apply to generation operators or distribution providers. Further, we do not accept that each entity whose telecommunications facilities will be needed during the system restoration process is currently subject to COM-001-1.1 Requirement R2 which provides that [e]ach Reliability Coordinator, Transmission Operator and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.

”

Assigned: Project 2006-06 - Reliability Coordination

FERC-Final Rule Approving Planning Resource Adequacy Assessment Standard BAL-502-RFC-02 (Order 747)

Issued 3/17/2011

DIRECTIVE: S- Ref 10752 - The Commission directs RFC to add time horizons to the two main requirements when RFC reviews BAL-502-RFC-02 at the scheduled five-year review.

Para 53

”Para 53 The Commission agrees with the Midwest ISO that time horizons are a factor in NERCs determination of a penalty for a violation and acknowledges that RFC is modifying its standards development process such that it will include time horizons as an element in its regional

Reliability Standards template. Accordingly, as proposed in the NOPR, the Commission directs RFC to add time horizons to the two main requirements when RFC reviews BAL-502-RFC-02 at the scheduled five-year review."

Assigned: Project Regional - For directives assigned to regions

Address during scheduled five-year review.

Status: Pending Delivery: 2016

Solution Details:

The two FERC directives associated with the BAL-502-RFC-02 Standard are tied to the five-year review (as required in the RFC Standards Development Procedure). With the five-year review period ending in the 2016 timeframe (BAL-502-RFC-02 has an enforcement date of 05/23/2011), RFC will most likely begin the review process in Q1, 2015.

DIRECTIVE: S- Ref 10753 - Consider, at the time of its five-year review, whether to add a requirement to BAL-502-RFC-02 that would require Planning Coordinators to identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning reserves determined from the resource adequacy analysis.

Para 65

"Para 65 The Commission accepts RFCs commitment to consider, at the time of its five-year review, whether to add a requirement to BAL-502-RFC-02 that would require Planning Coordinators to identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning reserves determined from the resource adequacy analysis."

Assigned: Project Regional - For directives assigned to regions

Address during scheduled five-year review.

Status: Pending Delivery: 2016

Solution Details:

The two FERC directives associated with the BAL-502-RFC-02 Standard are tied to the five-year review (as required in the RFC Standards Development Procedure). With the five-year review period ending in the 2016 timeframe (BAL-502-RFC-02 has an enforcement date of 05/23/2011), RFC will most likely begin the review process in Q1, 2015.

FERC-Final Rule Approving Interconnection Reliability Operating Limits Standards (Order 748) Issued 3/17/2011

DIRECTIVE: S- Ref 10754 - The Commission requests that the NERC Reliability Coordinators Working Group engage the issues raised in this proceeding with NERC stakeholders, including the NERC Planning and Operating committees, to determine whether a need exists to further refine the delineation of responsibilities between the reliability coordinator and transmission operator for analyzing a class of grid-impactive SOLs..

Para 44

"Para 44Because the study and monitoring of SOLs and IROLs is an issue at the very core of Bulk-Power System reliability, the Commission agrees with EEI that the NERC Reliability Coordinators Working Group should engage the issues raised in this proceeding with NERC stakeholders, including the NERC Planning and Operating committees, to determine whether a need exists to further refine the delineation of responsibilities between the reliability coordinator and transmission operator for analyzing a class of grid-impactive SOLs. Depending on the results of that review, we further encourage NERC, working through its standard development process, to develop appropriate modifications to these and any other related Reliability Standards as necessary."

Assigned: Project OC PC SubC - For directives assigned to the Standing Committees

DIRECTIVE: S- Ref 10755 - The Reliability Coordinator Working Group should further study the issue of requiring both the reliability coordinator and transmission operator to develop action plans for every SOL may add confusion to the process and determine if there is a need for reliability coordinators to have action plans developed and implemented with respect to certain grid-impactive SOLs.

Para 55 and 52

"Para 55The Commission agrees with NERC that requiring both the reliability coordinator and transmission operator to develop action plans for every SOL may add confusion to the process. As a result, the Commission approves IRO-009-1, without modification. However, the Reliability

Coordinator Working Group should further study this issue and determine if there is a need for reliability coordinators to have action plans developed and implemented with respect to certain grid-impactive SOLs.

Para 52 In the NOPR, the Commission sought comment on whether reliability coordinators should have action plans developed and implemented with respect to other SOLs apart from IROLs and if so, which SOLs.

"

Assigned: Project OC PC SubC - For directives assigned to the Standing Committees

FERC-Final Rule on Version One Regional Reliability Standards for Facilities Design, Connections, and Maintenance; Protection and Control; and Voltage and Reactive (Order 751)
Issued 4/21/2011

DIRECTIVE: S- Ref 10756 - The Commission directs NERC to remove the WECC regional definition of Disturbance from the NERC Glossary to ensure consistency between the regional and NERC defined terms.

Para 13

"Para13In addition, we direct WECC to address a concern pertaining to the applicability of FAC-501-WECC-1 and PRC-004-WECC-1, which reference tables of major transmission paths and remedial action schemes posted on the WECC website. We also adopt our NOPR to direct NERC to remove the WECC regional definition of Disturbance from the NERC Glossary to ensure consistency between the regional and NERC defined terms."

Assigned: Project Regional - For directives assigned to regions

This directive is addressed in a WECC Variance to NERC VAR-001-2.

Status: Ballot Approved Delivery: 2012

Solution Details:

This directive is addressed in a WECC Variance to NERC VAR-001-2. This WECC variance has completed the WECC process, and has also completed the NERC 45-day posting. Will be submitted to NERC for BOT approval at the May 2012 BOT meeting.

DIRECTIVE: S- Ref 10757 - The Commission directs WECC to submit revisions to or explanations justifying specific violation risk factors and violation severity levels within 60 days from the issuance of Order 751.

Due 6/20/2011

Para 133 and 129 thru 132

"Para 133 Consistent with our concerns outlined above, we direct WECC to consider modifications to the violation risk factors and violation severity levels assigned to these four regional Reliability Standards. Accordingly, we direct WECC to submit revisions to or explanations justifying these violation risk factors and violation severity levels within 60 days from the issuance of this order. Consistent with NERC practice, these violation risk factors and violation severity levels should be in table format. Interested parties will have an opportunity to comment on this filing. In addition, the Commission supports WECCs agreement to conform the violation severity levels format to that of the NERC Reliability Standards related to FAC-501-WECC-1, VAR-002-WECC-1 and VAR-501-WECC-1 in future revisions to the regional Reliability Standards. Accordingly, we expect WECC to make future revisions to these and other violation risk factors and violation severity level assignments consistent with any changes in NERC and Commission guidelines.

Para 129 In FAC-501-WECC-1, the Lower violation severity level applies when the transmission maintenance and inspection plan does not include facilities for one of the paths in the WECC Transfer Path Table, but the transmission owners are performing maintenance and inspection for those facilities. The Moderate violation severity level applies when the transmission maintenance and inspection plan does not include facilities for two of the paths in the WECC Transfer Path Table, and the transmission owners are not performing maintenance and inspection for those facilities. Based on these two violation severity level assignments, it is ambiguous which violation severity level would apply if the transmission maintenance and

inspection plan does not include facilities for one of the paths in the WECC Transfer Path Table, and the transmission owners are not performing maintenance and inspection for those facilities. Para 130 In PRC-004-WECC-1, the violation severity levels for Requirement R2.3 do not define any potential violations for the transmission owner even though both Requirement 2.3 and sub-Requirement 2.3.1 apply to the transmission owner, a situation that could be viewed as violating violation severity level guideline 3. Also in PRC-004-WECC-1, violation risk factors have not been assigned for Requirements R2, R2.4 and R2.4.1. If WECC believes that it would be inappropriate to assign violation risk factors to these requirements, it should submit an explanation.

Para 131 In VAR-002-WECC-1, Requirement R1 requires the automatic voltage regulators to be in service and in automatic voltage control mode but the violation severity levels for Requirement R1 specify only that the automatic voltage regulator must be in service, which could be viewed as violating violation severity level guideline 3. Also, the violation severity levels for VAR-002-WECC-1, Requirement R1 lower the level of compliance from the levels of non-compliance associated with the currently-effective VAR-STD-002a-1. VAR-STD-002a-1 includes four levels of non-compliance (Level 1, Level 2, Level 3, and Level 4) which have been translated into the four violation severity levels (Lower, Moderate, High, and Severe). The four levels of non-compliance are defined by the automatic voltage regulator in service hours being: (Level 1) less than 98 percent but at least 96 percent; (Level 2) less than 96 percent but at least 94 percent; (Level 3) less than 94 percent but at least 92 percent; and (Level 4) less than 92 percent. The violation severity levels assigned to Requirement R1 of VAR-002-WECC-1 are defined by the automatic voltage regulator in service hours being: (Lower) less than 98 percent but at least 90 percent; (Moderate) less than 90 percent but at least 80 percent; (Higher) less than 80 percent but at least 70 percent; and (Severe) less than 70 percent. This change appears to violate violation severity level guideline 1. In addition, WECC has determined that High and Severe violation severity levels are not applicable to Requirement R2 of VAR-002-WECC-1.

132 In VAR-501-WECC-1, the violation severity levels for Requirement R1 lower the level of compliance from the levels of non-compliance associated with the currently-effective VAR-STD-002a-1. VAR-STD-002b-1 includes four levels of non-compliance (Level 1, Level 2, Level 3, and Level 4) which have been translated into the four violation severity levels (Lower, Moderate, High, and Severe). The four levels of non-compliance are defined by the power system stabilizer in service hours being: (Level 1) less than 98 percent but at least 96 percent; (Level 2) less than 96 percent but at least 94 percent; (Level 3) less than 94 percent but at least 92 percent; and (Level 4) less than 92 percent. The proposed violation severity levels are defined by the power system stabilizer in service hours being: (Lower) less than 98 percent but at least 90 percent; (Moderate) less than 90 percent but at least 80 percent; (Higher) less than 80 percent but at least 70 percent; and (Severe) less than 70 percent. This change appears to violate violation severity level guideline 1. For Requirement R2, only lower and moderate violation severity levels were defined.

"

Assigned: Project Regional - For directives assigned to regions

Fixes from Jul 7 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, dressel, heenan

DIRECTIVE: S- Ref 10761 - The Commission directs WECC to file, within 60 days from the issuance of this Final Rule, its criterion for identifying and modifying major transmission paths listed in the WECC Transfer Path Table.

Due 6/20/2011

Para 24

"Para 24 Consistent with our NOPR proposal and WECCs comments the Commission directs WECC to file, within 60 days from the issuance of this Final Rule, its criterion for identifying and modifying major transmission paths listed in the WECC Transfer Path Table. Moreover, the Commission accepts WECCs commitment to publicly post any revisions to the WECC Transfer Path Table on the WECC website with concurrent notification to the Commission, NERC, and

industry. We believe that this process balances the interests of WECC in developing timely revisions to the WECC Transfer Path Table with the need for adequate transparency for transmission owners that are affected by changes to the WECC Transfer Path Table."

Assigned: Project Regional - For directives assigned to regions

Fixes from Jul 7 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, dressel, heenan

DIRECTIVE: S- Ref 10762 - The Commission recommends that WECC consider the comments of Bonneville, PacifiCorp and TANC when it develops future modifications to FAC-501-WECC-1.

Para 32, 28, and 29

"Para 32 In response to our concern that use of the term System Operating Limit could expand the applicability of FAC-501-WECC-1 to transmission facilities that are not listed in the WECC Transfer Path Table, we accept WECCs explanation that the applicability of the Reliability Standard is clear. Consistent with comments filed by Bonneville and PacifiCorp, we find that it would be unreasonable to interpret FAC-501-WECC-1 as requiring transmission owners to be responsible for maintaining and inspecting transmission facilities related to System Operating Limits on paths that they do not own. Nevertheless, we believe that this could be clearer in the language of Requirement R1. Accordingly, we recommend that WECC consider the comments of Bonneville, PacifiCorp and TANC when it develops future modifications to FAC-501-WECC-1.

Para 28 SDG&E and TANC support the use of System Operating Limits instead of Operating Transfer Capability limits. SDG&E comments that the methodology for determining System Operating Limits is the same as for Operating Transfer Capability limits and that there is no confusion related to the use of System Operating Limit in Requirement R1. TANC comments that an interpretation of Requirement R1 that requires transmission owners of major paths to be responsible for maintaining and inspecting transmission facilities owned by other entities whose facilities may be necessary to maintain System Operating Limits associated with the major path would be infeasible, overly burdensome on the individual owners of the major paths and inconsistent with the spirit of the proposed regional Reliability Standard as written. TANC suggests that using the term Operating Transfer Capability limit as a substitute for System Operating Limit may resolve any confusion, as could a modification clarifying that each major path transmission owners responsibility is to inspect and maintain its own facilities.

Para 29 Bonneville and PacifiCorp also support the use of the term System Operating Limit instead of the term Operating Transfer Capability because both terms result in the same requirement that maintenance be performed to ensure that each path is capable of operating up to the paths limit. Nevertheless, Bonneville and PacifiCorp comment that Requirement R1 is unclear as to which facilities are covered and who is responsible for the maintenance of those facilities. Bonneville contends that the transmission owner should be responsible only for the facilities it owns, and the standard should make this clear. PacifiCorp suggests that Requirement R1 should be modified to reflect that transmission owners should have a transmission maintenance and inspection plan detailing their requirements that apply to all transmission facilities identified by the Transmission Operator of the transmission path as necessary for System Operating Limits associated with each of the transmission paths identified in the WECC Transfer Path Table.

"

Assigned: Project Regional - For directives assigned to regions

Fixes from Jul 7 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, dressel, heenan

DIRECTIVE: S- Ref 10763 - The Commission directs WECC to file, within 60 days from the issuance of this Final Rule, its criteria for identifying and modifying major transmission paths listed in the WECC Transfer Path Table and major remedial actions schemes listed in the WECC Remedial Action Schemes Table.

Due 6/20/2011

Para 41

"Para 41 Consistent with our NOPR proposal and WECCs comments the Commission directs WECC to file, within 60 days from the issuance of this Final Rule, its criteria for identifying and modifying major transmission paths listed in the WECC Transfer Path Table and major remedial actions schemes listed in the WECC Remedial Action Schemes Table. Moreover, the Commission accepts WECCs commitment to publicly post any revisions to the WECC Transfer Path Table, WECC Remedial Action Schemes Table, and the associated catalogs on the WECC website with concurrent notification to the Commission, NERC, and industry. We believe that this process balances the interests of WECC in developing timely revisions to the WECC Transfer Path Table with the need for adequate transparency for transmission owners that are affected by changes to the WECC Transfer Path Table and the WECC Remedial Action Schemes Table."

Assigned: Project Regional - For directives assigned to regions

Fixes from Jul 7 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, dressel, heenan

DIRECTIVE: S- Ref 10787 - The Commission encourages NERC to consider the comments of PacifiCorp regarding the development of a continent-wide definition of Functionally Equivalent Protection System and Functionally Equivalent Remedial Action Scheme during the development of Project 2009-07.

Para 50 and 47

"Para 50 We will not direct NERC to consider PacifiCorps suggestion that the Commission direct NERC to consider the development of a continent-wide definition of functionally equivalent protection system and functionally equivalent remedial action scheme. We note that NERC has an ongoing project that could address this issue. We encourage NERC to consider the comments of PacifiCorp in this proceeding during the development of Project 2009-07 and encourage PacifiCorp to participate in this NERC project.

Para 47 Bonneville and PacifiCorp generally agree that the terms Functionally Equivalent Protection System and Functionally Equivalent Remedial Action Scheme are useful because they describe a protection system or remedial action scheme that is able to provide the necessary functionality of a protection system or remedial action scheme without the loss of any necessary dependability for the system. PacifiCorp further suggests that the Commission direct NERC to consider the development of a continent-wide definition of Functionally Equivalent Protection System and Functionally Equivalent Remedial Action Scheme.

"

Assigned: Project 2009-07 - Reliability of Protection Systems

DIRECTIVE: S- Ref 10764 - The Commission encourages WECC to consider the comments of Mariner in during the development of VAR-002-WECC-1 in its Project WECC-0046.

Para 67 and 63

"The Commission encourages WECC to consider the comments of Mariner in during the development of VAR-002-WECC-1 in its Project WECC-0046."

Assigned: Project Regional - For directives assigned to regions

This directive is addressed in a WECC Variance to NERC VAR-001-2.

Status: Ballot Approved Delivery: 2012

Solution Details:

This directive is addressed in a WECC Variance to NERC VAR-001-2. This WECC variance has completed the WECC process, and has also completed the NERC 45-day posting. Will be submitted to NERC for BOT approval at the May 2012 BOT meeting.

FERC-Final Rule on TOP-007-WECC-1 (Order 752)

Issued 4/21/2011

DIRECTIVE: S- Ref 10765 - The Commission directs WECC to file, within 60 days from the issuance of Order 752, WECCs criteria for identifying and modifying major transmission paths listed in the WECC Transfer Path Table.

Due 6/20/2011

Para 43

"Para 43 Consistent with our NOPR proposal, WECCs and other parties comments, the Commission directs WECC to file, within 60 days from the issuance of this Final Rule, WECCs criteria for identifying and modifying major transmission paths listed in the WECC Transfer Path Table. Moreover, the Commission accepts WECCs commitment to publicly post any revisions to the WECC Transfer Path Table on the WECC website with concurrent notification to the Commission, NERC, and industry. We believe that this process balances the interests of WECC in developing timely revisions to the WECC Transfer Path Table with the need for adequate transparency for transmission owners that are affected by changes to the WECC Transfer Path Table."

Assigned: Project Regional - For directives assigned to regions

Fixes from Jul 7 2011

Status: Filed Delivery: 2011

Solution Details:

Based on legal review - cook, dressel, heenan

DIRECTIVE: S- Ref 10766 - The Commission directs WECC to file, within 120 days from the issuance of Order 752, a modification to the VRF for Requirement R1 of TOP-007-WECC-1.

Due 8/19/2011

Para 50 and 49

"Para 50 Requirement R1 applies to both stability and thermally constrained SOLs. Stability constrained SOLs by their nature can potentially have widespread system impacts such as instability, uncontrolled separation and voltage collapse. While WECC uses remedial action schemes (RAS) to control these dynamic challenges, the RAS can, in some cases, lead to controlled separation and controlled variations of stability impacts. Given the exposure to potential controlled separations, the Commission finds that the appropriate VRF for Requirement R1 is high. Accordingly, the Commission directs WECC to modify the VRF assignment to high and submit the modification in a compliance filing to be submitted within 120 days from the date this Final Rule issues.

Para 49 The Commission has reviewed the VRF assignments for TOP-007-WECC-1 and it is our view that the VRFs assigned to Requirements R1 and R2 are not consistent with the above-described Commission guidance. The Commission does not agree with WECC that Requirement R1 should be assigned a medium VRF instead of high. The VRF Order guidance emphasizes consistency with NERCs definition of the VRF level. NERC defines a high risk requirement as follows: A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures. . . .

"

Assigned: Project Regional - For directives assigned to regions

DIRECTIVE: S- Ref 10767 - The Commission directs WECC to file, within 120 days from the issuance of Order 752, a modification to the VRF for Requirement R2 of TOP-007-WECC-1.

Due 8/19/2011

Para 51

"Para 51 With respect to Requirement R2, as WECC acknowledges in its comments, Requirement R2 should be assigned a medium VRF. The Commission finds that Requirement R2 is not administrative in nature as it prohibits a transmission operator from allowing the net scheduled

interchange across a path from exceeding the paths SOLs. Violations of Requirement R2 could directly affect the electrical state of the Bulk-Power System. Thus, the nature of Requirement R2 is consistent with NERCs definition of a medium VRF assignment level rather than the lower level. Accordingly, we direct WECC to modify the VRF assignment for Requirement R2 to medium and submit the modification in a compliance filing to be submitted within 120 days from the date this Final Rule issues."

Assigned: Project Regional - For directives assigned to regions

DIRECTIVE: S- Ref 10768 - The Commission directs WECC to file, within 120 days from the issuance of Order 752, modifications to the VSLs for TOP-007-WECC-1 to reflect NERCs approved table format.

Due 8/19/2011

Para 53

"Para 53 The Commission accepts WECCs commitment to revise the VSL assignments to conform to the NERC table format. Accordingly, we direct WECC to modify the VSL assignments for TOP-007-WECC-1, to reflect NERCs approved table format and include the revision as part of its compliance filing to be submitted within 120 days from the date this Final Rule issues."

Assigned: Project Regional - For directives assigned to regions

FERC-Order Approving Interpretation of Transmission Planning Reliability Standard in Docket No. RM10-6-000 (Order 754)

Issued 9/15/2011

DIRECTIVE: S- Ref 10788 - The Commission directs NERC to make an informational filing within six months of the date of the issuance of Order 754 explaining whether there is a further system protection issue that needs to be addressed.

Due 3/15/2012

Para 20

"Para 20 Accordingly, consistent with the supplemental comments of the Trade Associations, we direct Commission staff to meet with NERC and its appropriate subject matter experts to explore this reliability concern, including where it can best be addressed, and identify any additional actions necessary to address the matter. Further, we direct NERC to make an informational filing within six months of the date of the issuance of this Final Rule explaining whether there is a further system protection issue that needs to be addressed and, if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.

Also see:

Para 15. The Trade Associations submitted supplemental comments, with additional comments in support filed by NERC. The Trade Associations reiterate their request that the Commission approve, without change, NERCs proposed interpretation of Reliability Standard TPL-002-0 Requirement R1.3.10. The Trade Associations also state that, based on outreach meetings with Commission staff, there may be a system protection issue that merits further exploration by technical experts. Thus, the Trade Associations suggest that the Commission take the following two actions. First, instruct Commission Reliability Staff to meet with NERC and its appropriate subject matter experts to: (a) explore Staffs concerns and identify whether there is a further system protection issue warranting additional actions, and (b) if so, define the issues scope and assess its importance. The Trade Associations state such exchange of views among technical experts would be intended to facilitate the subject matter experts ability to recommend appropriate actions within NERC. Second, direct NERC to submit an informational filing within six months to explain its view as to whether there is a further system protection issue that needs to be addressed and if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.

Para 16. NERC supports the Trade Associations proposal to give NERC, Commission staff, and technical experts the opportunity to further examine whether there may be a potential system protection issue that needs to be addressed. NERC states that it would make an informational filing with the Commission regarding whether there is a further system protection issue that needs to be addressed and if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.

Para 19. We agree with the Trade Associations that there may be a system protection issue that merits further exploration by technical experts. The comments received in response to the Commissions NOPR and Commission staff outreach discussions indicate that there may have been a misunderstanding that the Commissions proposed interpretation would have established a full redundancy requirement for all primary protection systems. The Commission clarifies that it did not intend to require full redundancy. Rather, the Commission believes that there is an issue concerning the study of the non-operation of non-redundant primary protection systems; e.g., the study of a single point of failure on protection systems. The Commission agrees with commenters that this issue does not have to be addressed in TPL-002-0, Requirement R1.3.10.

"

Assigned: Project Order 754 - Placeholder

NERC is processing two options, (1) an Interpretation Request for SC approval and (2) a Request for Data or Information to industry.

Status: In Drafting Delivery: 2012

Solution Details:

This directive has been satisfied by NERC achieving the following elements: (1) making an informational filing within six months of Order No. 754 (i.e. March 15, 2012) In progress, (2) explaining whether there is a further system protection issue that needs to be addressed A concern was established at the October 24-25, 2011 FERC Technical Meeting, (3) if so, what forum and process should be used to address that issue A forum of two teams were created using a Standard Drafting Team format as a process. One team to work on an Interpretation Request and the other a Request for Data or Information pursuant to NERCs Rules of Procedure, Section 1600, (4) and what priority it should be accorded relative to other reliability initiatives planned by NERC (4a) The Interpretation Request priority will be determined by the NERC Standards Committee (In progress) and (4b) the Request for Information or Data will be bound with a 12-month time limit with periodic reporting (currently posted for comment).

In the first part, the team tasked with the development of the Interpretation Request, held several conference calls to discuss the crafting of an interpretation to address the Commissions directive. The team conducted an informal survey of those industry participants present at the October 24-25, 2011 FERC Technical Meeting to narrow the issues. The result was the development of an Interpretation Request concerning two Reliability Standards and a total of six requirements. They are TPL-003-0a, Requirements R1.3.1, R1.3.10 and R1.5 and the other is TPL-004-0, Requirements R1.3.1, R1.3.7 and R1.4. The Interpretation Request was reviewed by the NERC System Protection & Control Subcommittee (SPCS) in coordination with the NERC System Analysis & Modeling Subcommittee (SAMS), formerly the Transmission Issues Subcommittee. The SPCS and SAMS endorsed the Interpretation Request and it is pending approval by the NERC Standards Committee for further action. Ancillary items discovered during the process have been submitted to NERC via NERCs Suggestion Form process for inclusion into the NERC Issues and Directive database.

In the second part, the team tasked with the development of a Request for Data or Information (i.e. data request), held several conference calls to discuss the crafting of the data request to address the Commissions directive. The teams data request was reviewed by the SPCS and SAMS and found to be overly prescriptive and burdensome. The team in conjunction with the two subcommittees refined the data request to reduce the burden and to be less prescriptive by establishing a methodology for industry to qualify its facilities and what reviews should be conducted based on certain system performance. As a result, the data request names the Transmission Planner (TP) functional entity as responsible for reporting data to NERC. Both, Generation Owners and Transmission Owners are required to support the TP in fulfillment of its obligations. The data request aims to collect a sufficient sampling of information of protection systems above 100 kV for further analysis of single points of failure on protection systems.

FERC-Order Approving Reliability Standard FAC-008-3 (Order Approving FAC-008-3)

Issued 11/17/2011

DIRECTIVE: S- Ref 10792 - The Commission directed the ERO to modify the VRF assignment for FAC-008-3, Requirement R2 to medium and to submit the modification in a compliance filing within 60 days from the date this order issues (by January 16, 2012).

Due 1/16/2012

Para 24

"We agree with the Lower VRF for Requirement R1 and the Medium VRF for Requirement R3. However, we reject NERCs proposed Lower VRF for FAC-008-3, Requirement R2. Unlike FAC-008-3, Requirement R1, which applies, generally, to generator facilities behind the main step up transformer, Requirement R2 applies to radial feed facilities which are more likely than behind-the-transformer generator facilities to directly affect the electric state of the bulk electric system. Further, while Requirement R1 is a documentation-only requirement, Requirement R2 imposes more than documentation requirements. Specifically, Requirement R2 mandates the provision of the underlying assumptions and methods used to determine the equipment ratings (Sub-requirement R2.2) and the process for determining the equipment rating (Sub-requirement R2.4). Thus, Requirement R2 while a planning requirement is not merely administrative in nature. It therefore falls outside of NERCs definition of Lower Risk Requirements, which defines a Lower Requirement as one that is administrative in nature. The Commissions VRF guidelines require consistency with NERCs definition of the VRF level. Accordingly, the Commission directs the ERO to modify the VRF assignment for FAC-008-3, Requirement R2 to medium and to submit the modification in a compliance filing within 60 days from the date this order issues."

Assigned: Project Legal - For directives that can be addressed by Legal

Filings complying with directives made

Status: Filed Delivery: 2012

Solution Details:

VRFs and VSLs modified as requested.

FERC-Order Approving Reliability Standard FAC-013-2 (Order Approving FAC-013-2)

Issued 11/17/2011

DIRECTIVE: S- Ref 10789 - The Commission directs NERC to either provide additional justification for these VRF designations or propose a revised VRF designation that addresses our concerns.

Due 1/16/2012

Para 23

"We find that the violation risk factors (VRFs) assigned to Requirements R2, R3, R5 and R6 are consistent with the Commissions established guidelines and approve them as filed. However, we find that NERC has not adequately justified its proposed lower VRF designation for Requirements R1 and R4, and direct NERC to either provide additional justification for these VRF designations or propose a revised VRF designation that addresses our concerns."

Assigned: Project Legal - For directives that can be addressed by Legal

Filings complying with directives made

Status: Filed Delivery: 2012

Solution Details:

VRFs and VSLs modified as requested.

DIRECTIVE: S- Ref 10790 - The Commission directs NERC to modify the VSL language for Requirement R1 to correct a typographical error.

Para 27

"Finally, we approve the violation severity levels (VSLs) for FAC-013-2 as proposed, with the exception of the VSL triggers for R1, which appear to contain a typographical error. The VSL language for R1, as filed by NERC, uses the same description for medium, high, and severe violations, as follows:

The Planning Coordinator has a Transfer Capability methodology, but failed to incorporate one of [sub-requirements 1.1 through 1.5] of Requirement R1 into that methodology.

It appears that these triggers were intended to be progressive, i.e., the failure to incorporate one component was intended to be a medium level violation, as is currently stated in NERCs filed

version of FAC-013-2, but a high level violation should require a failure to incorporate two components, and so on. Accordingly, we will direct NERC to modify the VSL language for Requirement R1 to correct this apparent error.

"

Assigned: Project Legal - For directives that can be addressed by Legal

Filings complying with directives made

Status: Filed Delivery: 2012

Solution Details:

VRFs and VSLs modified as requested.

DIRECTIVE: S- Ref 10791 - The Commission directs NERC to submit a compliance filing by January 16, 2012 to correct VSLs and VRFs.

Due 1/16/2012

Para 28

"For the reasons stated above, we direct NERC to submit a compliance filing within 60 days of issuance of this order, that (1) either proposes a medium VRF designation for Requirements R1 and R4, or provides additional justification for a lower VRF level; and (2) corrects the proposed VSL language for R1."

Assigned: Project Legal - For directives that can be addressed by Legal

Filings complying with directives made

Status: Filed Delivery: 2012

Solution Details:

VRFs and VSLs modified as requested.

FERC-Order Approving Interpretation of Protection System Reliability Standard PRC-005-1 (Order No. 758)

Issued 2/3/2012

DIRECTIVE: S- Ref 10847 - The Commission directs NERC to file a schedule/timeline for the development of technical documents, and associated reliability standard modifications, which 1) describe the devices and functions (to include sudden pressure relays which trip for fault conditions) that are designed to sense or take action against any abnormal system condition that will affect reliable operation of the Bulk-Power System, and 2) propose minimum maintenance activities for such devices and maximum maintenance intervals, including the technical basis for each.

Due 4/13/2012

Para 15

"The Commission accepts NERCs proposal, and directs NERC to file, within sixty days of publication of this Final Rule, a schedule for informational purposes regarding the development of the technical documents referenced above, including the identification of devices that are designed to sense or take action against any abnormal system condition that will affect reliable operation. NERC shall include in the informational filing a schedule for the development of the changes to the standard that NERC stated it would propose as a result of the above-referenced documents. NERC should update its schedule when it files its annual work plan.

Para 13 and 14

In their comments NERC, EEI, Joint Cities, Manitoba, NRECA, ITC, MidAmerican, and PSEG expressed varying levels of disagreement with the NOPRs proposed directive. The disagreements are based on a concern that the proposed directive will create an increase in scope that will capture many items not used in BES protection. NERC is concerned the scope of this proposed directive is so broad that any device that is installed on the Bulk-Power System to monitor conditions in any fashion may be included. NERC states that many of these devices are advisory in nature and should not be reflected within NERC Reliability Standards if they do not serve a necessary reliability purpose. NERC does not believe it is necessary for the Commission to issue a directive to address this issue. Instead, NERC proposes to develop, either independently or in

association with other technical organizations such as IEEE, one or more technical documents which:

1. describe the devices and functions (to include sudden pressure relays which trip for fault conditions) that should address FERCs concern; and
2. propose minimum maintenance activities for such devices and maximum maintenance intervals, including the technical basis for each.

NERC states that these technical documents will address those protective relays that are necessary for the reliable operation of the Bulk-Power System and will allow for differentiation between protective relays that detect faults from other devices that monitor the health of the individual equipment and are advisory in nature (e.g., oil temperature). Following development of the above-referenced document(s), NERC states that it will propose a new or revised standard (e.g. PRC-005) using the NERC Reliability Standards development process to include maintenance of such devices, including establishment of minimum maintenance activities and maximum maintenance intervals. Accordingly, NERC proposes to add this issue to the Reliability Standards issues database for inclusion in the list of issues to address the next time the PRC-005 standard is revised.

"

Not assigned to any project.

DIRECTIVE: S- Ref 10848 - The Commission directs NERC to include maintenance and testing of reclosing relays that can affect the reliable operation of the Bulk-Power System within Project 2007-17 or make an informational filing that provides a schedule for how NERC will address such issues.

Due 7/30/2012

Para 27 (also see paragraphs 16-26)

"We note that the original project to revise Reliability Standard PRC-005 failed a recirculation ballot in July of 2011. The project was subsequently reinitiated to continue the efforts to develop Reliability Standard PRC-005-2. Given that the project to draft proposed revisions to Reliability Standard PRC-005-1 continues in this reinitiated effort, and the importance of maintaining and testing reclosing relays, we direct NERC to include maintenance and testing of reclosing relays that can affect the reliable operation of the Bulk-Power System, as discussed above, within these reinitiated efforts to revise Reliability Standard PRC-005. (Footnote: On December 13, 2011, NERC submitted its Standards Development Plan for 2012-2014. NERC estimates that Project 2007-17 will be completed in the second quarter of 2012. By July 30, 2012, NERC should submit to the Commission either the completed project which addresses the remaining issues consistent with this order, or an informational filing that provides a schedule for how NERC will address such issues in the Project 2007-17 reinitiated efforts.)"

Not assigned to any project.

Appendix C—Outstanding Directives—Listed by Project

Project 2006-06 Reliability Coordination

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10048 - Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. TAPS Paragraph 483. TAPS states that Requirement R1.4 has an ambiguous requirement that, if applied to distribution providers and generat

Due 6/29/2012

Para 491

"Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. TAPS Paragraph 483. TAPS states that Requirement R1.4 has an ambiguous requirement that, if applied to distribution providers and generator operators, would impose redundancy requirements well beyond what is reasonably necessary for Bulk-Power System reliability. Further it asserts that the NOPR provides no basis for expanding the Reliability Standard to small entities, such as a 2-MW distribution provider or generator, much less than one that has no connection to the bulk transmission system. Finally, TAPS contends that, in making this proposal, the Commission is over-stepping its bounds by not leaving it to the EROs expert judgment whether COM-001-1 has sufficient coverage to protect Bulk-Power System reliability and states that, in any event, applicability should be limited through NERCs registry criteria and definition of bulk electric system."

Assigned: Project 2006-06 - Reliability Coordination

No requirement for redundancy; Added R7 R8

Status: In Drafting Delivery: 2012

Solution Details:

COM-001-1 There is no requirement for redundancy for Generator Operators or Distribution Providers.

The RCSDT added a proposed new requirements:

R7. Each Distribution Provider shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R7.1. Its Transmission Operator

R7.2. Its Balancing Authority.

R8. Each Generator Operator shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R8.1. Its Balancing Authority

R8.2. Its Transmission Operator.

There are also requirements for the TOP and BA to have Interpersonal Communications capability with the DP and GOP.

DIRECTIVE: S- Ref 10049 - Specify requirements for using telecommunication facilities during normal and emergency conditions that reflect the roles of the applicable entities and their impact of reliable operation, and include adequate flexibility. Paragraph 490. I

Para 503

"Specify requirements for using telecommunication facilities during normal and emergency conditions that reflect the roles of the applicable entities and their impact of reliable operation, and include adequate flexibility. Paragraph 490. In response to SDG&E, the Commission's intent is not to subject generator

operators and distribution providers to the same requirements placed on transmission operators. As part of the modification of this Reliability Standard or development of a new Reliability Standard to include the appropriate telecommunications facility requirements for generator operators and distribution providers, the ERO should take into account what would be required of generator operators and distribution providers in terms of telecommunications for the Reliable Operation of the Bulk-Power System, instead of applying the same requirements as are placed on other reliability entities such as reliability coordinators, balancing authorities and transmission operators."''

Assigned: Project 2006-06 - Reliability Coordination

Future phase

Status: *In Drafting* Delivery: 2012

Solution Details:

Future phase

DIRECTIVE: S- Ref 10142 - Eliminate the references to the regional reliability organization as an applicable entity. Paragraph 896. In the NOPR, the Commission proposed to approve the Reliability Standard as mandatory and enforceable. In addition, as a separate act

Para 896

"Eliminate the references to the regional reliability organization as an applicable entity. Paragraph 896. In the NOPR, the Commission proposed to approve the Reliability Standard as mandatory and enforceable. In addition, as a separate action under section 215(d)(5), the NOPR proposed to direct the ERO to develop modifications to Requirement R1291 to substitute Regional Entity for regional reliability organization and reflect NERCs Rules of Procedure for registering, certifying and verifying entities, including reliability coordinators. Commenters do not raise any concerns regarding the proposed action. Accordingly, for the reasons stated in the NOPR, the Commission approves IRO-001-1 as mandatory and enforceable. In addition, for the reasons discussed in the NOPR, the Commission directs the ERO to develop modifications to the Reliability Standard through the Reliability Standards development process that reflect the process set forth in the NERC Rules of Procedures and eliminate the regional reliability organization as an applicable entity."

Assigned: Project 2006-06 - Reliability Coordination

The SDT has removed references to the RRO.

Status: *In Drafting* Delivery: 2012

Solution Details:

The SDT has removed references to the RRO. R1 is proposed to be revised as:

R1. The Electric Reliability Organization shall certify at least one or more Reliability Coordinators to continuously assess transmission reliability and coordinate emergency operations among the operating entities within each region and across the regional boundaries. [Violation Risk Factor: High][Time Horizon: Operations Assessment

DIRECTIVE: S- Ref 10143 - Consider adding measures and levels of non-compliance. . Further, the Commission directs the ERO to consider adding Measures and Levels of Non-Compliance in the Reliability Standard as requested by APPA.

Para 897

"Consider adding measures and levels of non-compliance. . Further, the Commission directs the ERO to consider adding Measures and Levels of Non-Compliance in the Reliability Standard as requested by APPA."

Assigned: Project 2006-06 - Reliability Coordination

Added measures and VSLs for each requirement.

Status: *In Drafting* Delivery: 2012

Solution Details:

The RCSDT has added measures and VSLs (which replaced levels of non-compliance) for each requirement

DIRECTIVE: S- Ref 10150 - Provide further clarification that reliability coordinators and transmission operators direct control actions, not LSEs as part of the standard development process. Paragraph 950. We do not share TAPS concern regarding LSEs initiating load

Para 950

"Para 950

We do not share TAPS concern regarding LSEs initiating load shedding as their own control action to respect IROLs or SOLs. The appropriate control actions to respect IROLs and SOLs are the responsibilities of a reliability coordinator and transmission operator. If load shedding is required, it is the responsibility of a reliability coordinator or a transmission operator to direct the appropriate entities including LSEs to carry it out. However, we urge the ERO to provide further clarification in this regard and include TAPS concern in developing the modification of this Reliability Standard.

Para 944

TAPS raises an issue with Requirement R13 that states in part [i]n instances where there is a difference in derived limits, Load-Serving Entities shall always operate the Bulk Electric System to the most limiting parameter. TAPS further states that, since LSEs do not operate the system within SOLs or IROLs, the only thing such entities, particularly small ones, can do is shed load. It contends that if the Reliability Standard is mandatory, it should apply only within the parameters proposed by NERC subject to its Bulk Electric System definition and its June registry criteria. Further, given the apparent error in the Reliability Standard, the Commission should ask NERC to re-examine it.

"

Assigned: Project 2006-06 - Reliability Coordination

Proposed IRO-001, R1

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has proposed IRO-001, R1 to address this directive: Each Reliability Coordinator shall act or direct actions to be taken by Transmission Operators, Balancing Authorities, Generator Operators, Transmission Service Providers, Load-Serving Entities, Distribution Providers and Purchasing-Selling Entities within its Reliability Coordinator Area to prevent or mitigate the magnitude or duration of events that result in Adverse Reliability Impacts. [Violation Risk Factor: High][Time Horizon: Real-time Operations and Same Day Operations]

DIRECTIVE: S- Ref 10047 - Include generator operators and distribution providers in the list of applicable entities and create appropriate requirements for them. Paragraph 487. The Commission reaffirms its position that generator operators and distribution provider

Due 6/29/2012

Para 493 Sen 4

"Para 493

As we explained in the NOPR, communication with generator operators and distribution providers becomes especially important during an emergency when generators with black start capability must be placed in service and nearby loads restored as an initial step in system restoration. This occurs at a critical time when normal communication paths may be disrupted. While many generator operators and distribution providers may have telecommunications requirements pursuant to a bilateral contract as indicated by APPA, it is important that all generator operators and distribution providers identified by the ERO through its registration process are subject to uniform telecommunications requirements. Therefore, we adopt our proposal to require the ERO to modify COM-001-1 to apply to generator operators and distribution providers. However, we recognize that some of the existing requirements (such as Requirement R6 related to NERCNet) need not apply to generator operators and distribution providers. In light of commenters concerns, as an alternative, it would be acceptable for the ERO to develop a new Reliability Standard that would specifically address an appropriate range of Requirements for telecommunication facilities of generator operators and distribution providers that reflect their respective roles on Reliable Operation of the Bulk-Power System.

Para 487

The Commission reaffirms its position that generator operators and distribution providers should be included as applicable entities in COM-001-1 to ensure there is no reliability gap during normal and emergency operations. For example, during a blackstart when normal communications may be disrupted, it is essential that the transmission operator, balancing authority and reliability coordinator maintain communications with their distribution providers and generator operators. However, the current version of Reliability Standard COM-001-1 does not require this because it does not include generator operators and distribution providers as applicable entities. We clarify that the NOPR did not propose to require redundancy on generator operators or distribution providers telecommunication facilities or that generator operators or distribution providers be trained on anything not related to their functions during normal and emergency conditions. We expect the telecommunication requirements for all applicable entities will vary according to their roles and that these requirements will be developed under the Reliability Standards development process.

"

Assigned: Project 2006-06 - Reliability Coordination

New Requirements R7 and R8

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has proposed new requirements:

R7. Each Distribution Provider shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R7.1. Its Transmission Operator

R7.2. Its Balancing Authority.

R8. Each Generator Operator shall have Interpersonal Communications capability with the following entities to exchange Interconnection and operating information [Violation Risk Factor: High][Time Horizon: Real-time Operations]

R8.1. Its Balancing Authority

R8.2. Its Transmission Operator.

There are also requirements for the TOP and BA to have Interpersonal Communications capability with the DP and GOP.

DIRECTIVE: S- Ref 10152 - Measures and levels of non-compliance specific to IROL violations must be commensurate with the magnitude, duration, frequency, and causes of the violations and whether these occur during normal or contingency conditions. Paragraph 951. Ac

Para 951

"Measures and levels of non-compliance specific to IROL violations must be commensurate with the magnitude, duration, frequency, and causes of the violations and whether these occur during normal or contingency conditions. Paragraph 951. Accordingly, the Commission approves Reliability Standard IRO-005-1 as mandatory and enforceable. Further, because IRO-005-1 has no Measures or Levels of Non-Compliance, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to IRO-005-1 through the Reliability Standards development process that includes Measures and Levels of Non-Compliance. The Commission further directs that the Measures and Levels of Non-Compliance specific to IROL violations must be commensurate with the magnitude, duration, frequency and causes of the violations and whether these occur during normal or contingency conditions."

Assigned: Project 2006-06 - Reliability Coordination

Added measures and VSLs for each requirement.

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT has added measures and VSLs (which replaced levels of non-compliance) for each requirement.

DIRECTIVE: S- Ref 10050 - Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. Entergy Paragraph 499. Entergy states that it is unclear what cyber assets are covered by COM-001-0. Entergy believes that the Reliability

Para 503/504

"Address TAPS, Entergy, Six Cities, and FirstEnergy concerns through the standard development process. Entergy Paragraph 499. Entergy states that it is unclear what cyber assets are covered by COM-001-0. Entergy believes that the Reliability Standard should focus on telecommunications that support the operation of critical assets. Entergy also believes that COM-001-0 should be expanded to include advances in communications technology. It states that NERC should consider addressing the following in a way that will facilitate an understanding of the Reliability Standards requirements: (1) voice communications; (2) command and control data communications; (3) security coordination data communications; (4) digital messaging communications; (5) human linguistic convention and (6) other types of communications, including video conferencing and communications with remote security cameras. Entergy believes that this could be accomplished through an enhancement to the definition of communications in the NERC glossary and recasting COM-001-0 to improve the specificity of requirements for each form of communication. Finally, Entergy believes that Requirement R4 of COM-001-0, which requires reliability coordinators, transmission operators and balancing authorities to use English in all types of communications, should apply only to verbal and written communications."

Assigned: Project 2006-06 - Reliability Coordination

Addressed in IRO-010

Status: In Drafting Delivery: 2012

Solution Details:

The RCSDT received several stakeholder comments during the first posting of the draft standard regarding the intent of the term telecommunications facilities. For COM-001-2, the RC SDT envisions telecommunications to be voice or message communication between operating personnel. The standard has been renamed Communications and the term telecommunications facilities was replaced with Interpersonal Communications capabilities and Alternative Interpersonal Communications capabilities throughout the standards to better reflect the intent of the RCSDT. The data exchange provisions and infrastructure are addressed in the IRO-010 standard.

DIRECTIVE: S- Ref 10144 - Consider commenters suggestions as part of the standards development process. 893. FirstEnergy suggests that NERC clarify whether Requirement R8, which requires entities to comply with a reliability coordinator directive unless such action

Para 897

"Consider commenters suggestions as part of the standards development process. 893. FirstEnergy suggests that NERC clarify whether Requirement R8, which requires entities to comply with a reliability coordinator directive unless such actions would violate safety, equipment or regulatory or statutory requirements, refers to personnel safety, equipment safety or both. In addition, it suggests the establishment of a chain of command so that, for example, if a generator receives conflicting instructions from a balancing authority and a transmission operator, it can determine which instruction governs.

Consider commenters suggestions as part of the standards development process. Paragraph 892. APPA supports the approval of the Reliability Standard but expresses concern that the Version 1 standard does not include Measures that correspond to Requirements R2 and R9. APPA emphasizes the need for Measures corresponding to Requirement R9, which requires the reliability coordinator to act in the interests of reliability for the overall reliability coordinator area and the Interconnection before the interests of any other entity. APPA supports Requirement R8 with the extended applicability, provided that applicability is determined by reference to the NERC compliance registry. APPA agrees that the regional reliability organization should be eliminated as an applicable entity and suggests it be replaced with Regional Entities.

894. Requirement R3 provides that a reliability coordinator shall have clear decisionmaking authority to act and direct actions to be taken by applicable entities to preserve the integrity and reliability of the Bulk Electric System and these actions shall be taken without delay but no longer than 30 minutes. Santa Clara contends that some actions would require driving to a remote site and therefore, mandating completion of the required action within 30 minutes would be unreasonable. Thus, it recommends that NERC modify Requirement R3 to provide that actions shall commence without delay, but in any event shall commence within 30 minutes.

895. California Cogeneration comments that the Reliability Standard fails to address the operational limitations of QFs because they have contractual obligations to provide thermal energy to their industrial hosts. It contends that a QF can be directed to change operations only in the case of a system emergency, pursuant to 18 CFR 292.307."

Assigned: Project 2006-06 - Reliability Coordination

Modified R2

Status: In Drafting Delivery: 2012

Solution Details:

2 now (R3) reads: R3. Each Transmission Operator, Balancing Authority, Generator Operator, Interchange Coordinator and Distribution Provider shall comply with its Reliability Coordinators direction per Requirement R2 unless the direction per Requirement R2 can not be implemented or such actions would violate safety, equipment, regulatory or statutory requirements. [Violation Risk Factor: High] [Time Horizon: Real-time Operations, Same Day Operations and Operations Planning]

If a generator receives conflicting directives, the generator should contact the Reliability Coordinator for clarification. All of the requirements of IRO-001 relate to Reliability Coordinator directives.

DIRECTIVE: S- Ref 10054 - Include a requirement for the reliability coordinator to assess and approve only those actions that have impacts beyond the area views of the transmission operators and balancing authorities. Include how to determine whether an action need

Para 520

"Include a requirement for the reliability coordinator to assess and approve only those actions that have impacts beyond the area views of the transmission operators and balancing authorities. Include how to determine whether an action needs to be assessed by the reliability coordinator."

Assigned: Project 2006-06 - Reliability Coordination

See Project 2006-06 Current drafting team to complete.

Status: In Drafting Delivery: 2012

Solution Details:

See Project 2006-06 Current drafting team to complete.

DIRECTIVE: S- Ref 10055 - Consider Xcels suggestion that the entity taking operating actions should not be held responsible for the delays caused by the reliability coordinators assessment and approval.

Para 523

"Consider Xcels suggestion that the entity taking operating actions should not be held responsible for the delays caused by the reliability coordinators assessment and approval."

Assigned: Project 2006-06 - Reliability Coordination

See Project 2006-06 Current drafting team to complete.

Status: In Drafting Delivery: 2012

Solution Details:

See Project 2006-06 Current drafting team to complete.

DIRECTIVE: S- Ref 10149 - In response to APPAs concern that NERC did not provide a Measure for each Requirement, we reiterate that it is in the EROs discretion whether each Requirement requires a corresponding Measure. The ERO should consider this issue through the

Para 934

"In response to APPAs concern that NERC did not provide a Measure for each Requirement, we reiterate that it is in the EROs discretion whether each Requirement requires a corresponding Measure. The ERO should consider this issue through the Reliability Standards development process"

Assigned: Project 2006-06 - Reliability Coordination

DIRECTIVE: S- Ref 10148 - Para 935 we direct the ERO to modify IRO-004-1 through the Reliability Standards development process to require the next-day analysis to identify control actions that can be implemented and effective within 30 minutes after a contingen

Para 935

"935.Accordingly, we approve Reliability Standard IRO-004-1 as mandatory and enforceable. Further, we direct the ERO to modify IRO-004-1 through the Reliability Standards development process to require the next-day analysis to identify control actions that can be implemented and effective within 30 minutes after a contingency. The Commission also directs the ERO to consider adding Measures and Levels of Non-Compliance to the Reliability Standard as requested by APPA."

Assigned: Project 2006-06 - Reliability Coordination

TBD

Status: In Drafting Delivery: 2012

Solution Details:

TBD

System Restoration (Order 749)

DIRECTIVE: S- Ref 10786 - NERC should close the gap in the applicability of the draft COM-001-2 so it addresses generation operators and distribution providers.

Para 28

"Paragraph 28 - NERC notes in its comments that the Reliability Coordination Standard Drafting Team is currently working on Project 2006-06 to develop a set of revisions to Reliability Standard COM-001-1.1 to tighten requirements relating to communication capabilities. The Commission believes the objectives of this project in managing, alarming, testing and/or actively monitoring vital primary and emergency telecommunication facilities will close this gap in the Reliability Standard after it is completed and approved. Accordingly, consistent with NERCs comments on its current project and concerns not to create redundancy in development of Reliability Standards, NERC should close the gap in the applicability of the draft COM-001-2 so it addresses generation operators and distribution providers.

Paragraph 27 - Reliability Standard COM-001-1 does not apply to generation operators or distribution providers. Further, we do not accept that each entity whose telecommunications facilities will be needed during the system restoration process is currently subject to COM-001-1.1 Requirement R2 which provides that [e]ach Reliability Coordinator, Transmission Operator and Balancing Authority shall manage, alarm, test and/or actively monitor vital telecommunications facilities. Special attention shall be given to emergency telecommunications facilities and equipment not used for routine communications.

"

Assigned: Project 2006-06 - Reliability Coordination

In drafting

Status: In Drafting Delivery: 2012

Solution Details:

In drafting

Project 2006-06.2 Phase 2 of Reliability Coordination: IRO-003

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10147 - Consider the suggestions of APPA, Entergy, and Xcel when doing so.

Para 914

"<From 693> Consider the suggestions of APPA, Entergy, and Xcel when doing so."

Assigned: Project 2006-06.2 - Phase 2 of Reliability Coordination: IRO-003

Future phase

Status: In Drafting Delivery: 2017

Solution Details:

Future phase

DIRECTIVE: S- Ref 10146 - Create criteria to define the term critical facilities in a reliability coordinators area and its adjacent systems.

Para 914

"<From 693> Create criteria to define the term critical facilities in a reliability coordinators area and its adjacent systems."

Assigned: Project 2006-06.2 - Phase 2 of Reliability Coordination: IRO-003

Future phase

Status: In Drafting Delivery: 2017

Solution Details:

Future phase

Project 2007-02 Operating Personnel Communications Protocols

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10051 - Although we direct that the regional reliability organization should not be the compliance monitor for NERCNet, we leave it to the ERO to determine whether it is the appropriate compliance monitor or if compliance should be monitored by the

Para 507

"Although we direct that the regional reliability organization should not be the compliance monitor for NERCNet, we leave it to the ERO to determine whether it is the appropriate compliance monitor or if compliance should be monitored by the Regional Entities for NERCNet User Organizations"

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

Should this be a NERC staff decision?

Status: In Drafting Delivery: 2013

Solution Details:

Should this be a NERC staff decision?

DIRECTIVE: S- Ref 10058 - Regarding APPAs suggestion that it may be beneficial to include communication protocols in the relevant Reliability Standard that governs those types of emergencies, we direct that it be addressed in the Reliability Standards Development pr

Para 533

"Regarding APPAs suggestion that it may be beneficial to include communication protocols in the relevant Reliability Standard that governs those types of emergencies, we direct that it be addressed in the Reliability Standards Development process."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

The OPCPSDT is addressing protocols for normal, alert, and emergency conditions.

Status: In Drafting Delivery: 2013

Solution Details:

The OPCPSDT is addressing protocols for normal, alert, and emergency conditions.

DIRECTIVE: S- Ref 10056 - Establish tightened communication protocols, especially for communications during alerts and emergencies. Establish uniformity to the extent practical on a continent-wide basis.

Para 531

"Establish tightened communication protocols, especially for communications during alerts and emergencies. Establish uniformity to the extent practical on a continent-wide basis."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

OPCP SDT developed a new proposed COM-003-1 Standard Communications Protocols to ensure that reliability-related information is conveyed effectively, accurately, consistently, in a timely manner and to ensure mutual understanding for all key parties, espe

Status: In Drafting Delivery: 2013

Solution Details:

OPCP SDT developed a new proposed COM-003-1 Standard Communications Protocols to ensure that reliability-related information is conveyed effectively, accurately, consistently, in a timely manner and to ensure mutual understanding for all key parties, especially during alerts and emergencies. Will use definition of Reliability Directive as proposed by Project 2006-06 Current drafting team to complete

DIRECTIVE: S- Ref 10057 - Address Santa Clara, FirstEnergy, and Six Cities concerns in the reliability standards development process.

Para 539

"Address Santa Clara, FirstEnergy, and Six Cities concerns in the reliability standards development process."

Not assigned to any project.

DIRECTIVE: S- Ref 10053 - Address APPAs concern through the standard development process.

Para 515

"Address APPAs concern through the standard development process."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

The OPCP SDT makes DP subject to new COM-003 Standard. The SDT also asks industry for feedback on potentially applying COM-003 to LSE and TSP in its initial posting Comment Form. Not a drafting team issue.

Status: In Drafting Delivery: 2013

Solution Details:

The OPCP SDT makes DP subject to new COM-003 Standard. The SDT also asks industry for feedback on potentially applying COM-003 to LSE and TSP in its initial posting Comment Form. Not a drafting team issue.

DIRECTIVE: S- Ref 10052 - Include distribution providers in the list of applicable entities.

Para 512

"Include distribution providers in the list of applicable entities."

Assigned: Project 2007-02 - Operating Personnel Communications Protocols

Included the Distribution Service Provider in Applicability section of new proposed COM-003-1 Standard. Future phase

Status: In Drafting Delivery: 2013

Solution Details:

Included the Distribution Service Provider in Applicability section of new proposed COM-003-1 Standard. Future phase

Project 2007-03 Real-Time Transmission Operations

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10381 - Para 1640 - Defines high risk conditions under which the system must be operated to respect multiple outages in requirement R3.

Para 1638

"1640 - Defines high risk conditions under which the system must be operated to respect multiple outages in requirement R3."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The SDT feels that proposed EOP-001-2 dealing with emergency operations planning covers the general intent of being prepared to react to the cited situations.

Status: *In Drafting* Delivery: 2012

Solution Details:

The SDT feels that proposed EOP-001-2 dealing with emergency operations planning covers the general intent of being prepared to react to the cited situations.

The method chosen to respond to a given catastrophic challenge to a localized portion of the bulk power system cannot be predetermined by science; rather, it is an art. Reliability entities develop their response mechanisms based on experience in their local areas to achieve the maximum societal benefit during these periods.

In addition, FAC-011-2 and FAC-014-2 deal with specific requirements for dealing with multiple contingencies.

DIRECTIVE: S- Ref 10340 - Consider FirstEnergys and the California PUCs comments about the maximum time for corrective actions in the standards development process. 1428. California PUC contends that imposing a time restriction for returning a system to a stable sta

Para 1444

"Consider FirstEnergys and the California PUCs comments about the maximum time for corrective actions in the standards development process. 1428. California PUC contends that imposing a time restriction for returning a system to a stable state may cause more harm than good since additional information and options may be available as time elapses. It repeats its suggestion from its earlier comments on the Staff Preliminary Assessment and proposes the following alternative language: Transmission or generation operators shall carry out corrective control actions, i.e., returning the system to a stable state that respects system requirements as soon as possible, and no longer than 30 minutes, except where a longer response time is feasible, or where a longer response is demonstrated to produce a better ultimate solution without unacceptable interim risk. 1431. FirstEnergy contends that Requirement R2.1 essentially requires generator operators to report all protective relay or equipment failures, since generator operators may not be able to tell which failures will reduce system reliability. FirstEnergy suggests that R2.1 should be revised to require generator operators to report all equipment failures or outages. FirstEnergy further suggests that PRC-001-1 be revised to provide that if a company performs reasonable testing procedures, undiscoverable equipment failures will not be violations of R2.1."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

Status: *In Drafting* Delivery: 2012

Solution Details:

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

The Transmission Operator is the true functional entity responsible here.

Covered as part of the new data specification requirements in proposed TOP-003-2.

DIRECTIVE: S- Ref 10341 - Upon detection of failures in relays or protection system elements on the bulk power system that threaten reliability, relevant transmission operators must be informed promptly, but within a specified period of time. -- (2) a requirement t

Para 1445

"Upon detection of failures in relays or protection system elements on the bulk power system that threaten reliability, relevant transmission operators must be informed promptly, but within a specified period of time. -- (2) a requirement that transmission and generator operators be informed immediately upon the detection of failures in relays or protection system elements on the Bulk-Power System that would threaten reliable operation, so that these entities could carry out appropriate corrective control actions consistent with those used in mitigating IROL violations."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Covered as part of the new data specification requirements in proposed TOP-003-2.

Status: In Drafting Delivery: 2012

Solution Details:

Covered as part of the new data specification requirements in proposed TOP-003-2.

DIRECTIVE: S- Ref 10343 - Para 1420. Once informed, transmission operators must carry out corrective control actions that return the system to a stable state that respects system requirements as soon as possible and no longer than 30 minutes. 1440. [t]he transmissi

Para 1449

"1420. Once informed, transmission operators must carry out corrective control actions that return the system to a stable state that respects system requirements as soon as possible and no longer than 30 minutes. 1440. [t]he transmission operator shall take corrective action as soon as possible refers to transmission operators taking operator control actions. It does not refer to troubleshooting, repairing or replacing failed relays or equipment, etc., since these time-consuming corrective actions would prolong the risk of cascading failures to the Bulk-Power System."

Assigned: Project 2007-03 - Real-Time Transmission Operations

TOP-001-2, R11

Status: In Drafting Delivery: 2012

Solution Details:

TOP-001-2, R11

DIRECTIVE: S- Ref 10366 - Consider Santa Claras comments on requirements R7.2 and R7.3 on transmission operator notification requirements as part of the standards development process.

Para 1588

"Consider Santa Claras comments on requirements R7.2 and R7.3 on transmission operator notification requirements as part of the standards development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

This is covered in proposed TOP-001-2, Requirement R5.

Status: In Drafting Delivery: 2012

Solution Details:

This is covered in proposed TOP-001-2, Requirement R5.

DIRECTIVE: S- Ref 10367 - Consider adding other measures and levels of non-compliance.

Para 1580

"Consider adding other measures and levels of non-compliance."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Measures and VSL have been assigned to all requirements.

Status: In Drafting Delivery: 2012

Solution Details:

Measures and VSL have been assigned to all requirements.

DIRECTIVE: S- Ref 10369 - Para 1608 - Next-day analysis for all IROLs must identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency.

Para 1601 Sen 8

"Par 1608

As we explained in the NOPR, TOP-002-2 serves an important purpose in ensuring that resources and operational plans are in place to enable system operators to maintain the Bulk-Power System in a reliable state. Further, the requirements set forth in the Reliability Standard are sufficiently clear and objective to provide guidance for compliance. Accordingly, the Commission approves Reliability Standard TOP-002-2. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to TOP-002-2 through the Reliability Standards development process that: (1) deletes references to confidentiality agreements in Requirements R3 and R4, but addresses the issue separately to ensure that necessary protections are in place related to confidential information; (2) requires the next-day analysis for all IROs to identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency to return the system to a reliable operating state and prevent cascading outages; (3) requires next-day analysis of minimum voltages at nuclear power plants auxiliary power busses and (4) requires simulation contingencies to match what will actually happen in the field.

Para 1601

As noted above, a number of commenters express concerns with the Commission's proposal to require a next-day analysis for all IROs to identify and communicate control actions to system operators. Identification and communication of control actions that can be implemented within 30 minutes are required to ensure that system operators are aware of and have options available to respond to system conditions following the first contingency to restore the system to a secure state so that it can withstand the next contingency. In addition, the control actions identified in the next-day analysis may quite often be relevant, and informing the system operators of the control options earlier on would be helpful. While the operators may take other actions to preserve the system, they need to have at least one plan (control actions) that will preserve the system from cascading. We believe this addresses FirstEnergy's concern regarding whether compliance requires the use of only the control actions identified in the day-ahead analysis. In response to APPA's comment on the use of state estimators and other tools to identify effective control actions, we note that this capability will help operators in assessing system responses, but they will not identify the control actions system operators will need to take in real-time. Further, operators may not be aware of available control actions, or worse they may not have any control actions, other than firm load-shedding, available to adjust the system after a first contingency occurs. Therefore, we direct the ERO to modify Reliability Standard TOP-002-2 to require the next-day analysis for all IROs to identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency to return the system to a reliable operating state and prevent cascading outages.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

See proposed TOP-002-3.

Status: In Drafting Delivery: 2012

Solution Details:

See proposed TOP-002-3.

DIRECTIVE: S- Ref 10370 - Para 1608 - Requires next-day analysis of minimum voltages at nuclear power plants auxiliary power buses.

Para 1603

"1608 - Requires next-day analysis of minimum voltages at nuclear power plants auxiliary power buses."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Next day analysis is required in proposed TOP-002-3, R1.

Status: In Drafting Delivery: 2012

Solution Details:

Next day analysis is required in proposed TOP-002-3, R1.

A specified minimum voltage limit is by definition an SOL which must be studied in proposed TOP-002-3, Requirement R1. Additionally, approved NUC-001-2, Requirement R3 & R4.1 require the transmission entity to incorporate NPIRs in their planning and operating analyses. All data required for Operational Planning Analyses is stipulated in proposed TOP-003-2.

Approved NUC-001-2, Requirements R3 & R8 covers the information flowing back to the nuclear plant operator.

DIRECTIVE: S- Ref 10371 - Par 1608 - Requires simulation contingencies to match what will actually happen in the field.

Para 1608 Sen 4 Item 4

"Par 1608

As we explained in the NOPR, TOP-002-2 serves an important purpose in ensuring that resources and operational plans are in place to enable system operators to maintain the Bulk-Power System in a reliable state. Further, the requirements set forth in the Reliability Standard are sufficiently clear and objective to provide guidance for compliance. Accordingly, the Commission approves Reliability Standard TOP-002-2. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to TOP-002-2 through the Reliability Standards development process that: (1) deletes references to confidentiality agreements in Requirements R3 and R4, but addresses the issue separately to ensure that necessary protections are in place related to confidential information; (2) requires the next-day analysis for all IROs to identify and communicate control actions to system operators that can be implemented within 30 minutes following a contingency to return the system to a reliable operating state and prevent cascading outages; (3) requires next-day analysis of minimum voltages at nuclear power plants auxiliary power busses and (4) requires simulation contingencies to match what will actually happen in the field.

Para 1604

The Commission proposed in the NOPR that simulations must be consistent with the number of elements that will be removed from service as a result of the failure of a single element. MidAmerican states that it operates consistent with this proposal, in that it respects a single contingency as one that includes all multiple pieces of the elements that go out of service together in response to a single event. Even though MidAmerican states that the Commission's proposal is too restrictive on system operation, it supports the proposal in the interest of reliability. To do otherwise would not represent what actually happens in real-time operations to the detriment of Bulk-Power System reliability, which demonstrates the need to approach the issue as we propose. We discuss this issue further in connection with a the TPL group of Reliability Standards, where we direct the ERO to modify the TPL Reliability Standards to simulate what actually happens in the physical system, including multiple element failures.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

This is covered in proposed TOP-002-3, Requirement R1 by the phrase "...that represents projected System conditions..."

Status: In Drafting Delivery: 2012

Solution Details:

This is covered in proposed TOP-002-3, Requirement R1 by the phrase "...that represents projected System conditions..."

DIRECTIVE: S- Ref 10372 - Consider the comments of ISO-NE and the NRC with respect to requirement R12 and measure M7 as part of the standard development process.

Para 1607

"Consider the comments of ISO-NE and the NRC with respect to requirement R12 and measure M7 as part of the standard development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Replaced by approved MOD-028-1, Requirement R6.1, MOD-029-1a, Requirement R3, and MOD-030-2, Requirement R2.4.

Status: In Drafting Delivery: 2012

Solution Details:

Replaced by approved MOD-028-1, Requirement R6.1, MOD-029-1a, Requirement R3, and MOD-030-2, Requirement R2.4.

Because IROLs by definition are a subset of SOLs, IROLs are included.

MOD-028-1, R6.1, Determine the incremental Transfer Capacity for each ATC Path by increasing generation and/or decreasing load within the source Balancing Authority area and decreasing generation and/or increasing load within the sink Balancing Authority area until either:

*-A System Operating Limit is reached on the Transmission Service Provider's system, or
-A SOL is reached on any other adjacent system in the Transmission model that is not on the study path and the distribution factor is 5% or greater.*

MOD-029-1a, R3, Each Transmission Operator shall establish the TTC at the lesser of the value calculated in R2 or any System Operating Limit (SOL) for that ATC Path.

MOD-030-2, R2.4, Establish the TFC of each of the defined Flowgates as equal to:

*-For thermal limits, the System Operating Limit (SOL) of the Flowgate.
-For voltage or stability limits, the flow that will respect the SOL of the Flowgate.*

DIRECTIVE: S- Ref 10376 - Para 1626 - Communicate scheduled outages to all affected entities well in advance to ensure reliability and accuracy of ATC calculations.

Para 1620

"1626 - Communicate scheduled outages to all affected entities well in advance to ensure reliability and accuracy of ATC calculations."

Assigned: Project 2007-03 - Real-Time Transmission Operations

New data specifications in TOP-003-2 handle this concern.

Status: In Drafting Delivery: 2012

Solution Details:

New data specifications in TOP-003-2 handle this concern.

DIRECTIVE: S- Ref 10377 - Para 1626 - Incorporate an appropriate lead time for planned outages using suggestions from the various commenters.

Para 1621

"1626 - Incorporate an appropriate lead time for planned outages using suggestions from the various commenters."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The SDT posed a question on this issue as a fact finding exercise in the second posting of this project...

Status: In Drafting Delivery: 2012

Solution Details:

The SDT posed a question on this issue as a fact finding exercise in the second posting of this project in order to assist them in making a decision on how to respond to the FERC directive as requested in order 693 - "The ERO should utilize the information filed by commenters in the Reliability Standards development process". The majority of respondents indicated that they do not feel that there is a reliability based need for such a North American requirement. Several respondents pointed out that such a requirement (if needed at all for reliability) would be better suited to a regional standard and several others stated that such requirements already exist in their particular regions.

There are several regions that have existing rules for lead times, but they are all different and are based on the requirements of their regional markets. Any attempt to impose a North American standard runs the risk of interfering with those FERC approved markets. While NERC Reliability Standards are intended to promote reliability, they must at the same time accommodate competitive electricity markets.

After reviewing the industry comments, the SDT concluded that proposed TOP-001-2, Requirements R5 & R6 adequately cover this issue. The SDT bases this position on the requirement which includes the Operations Planning Time Horizon that covers the period from one day to one year. The requirement mandates that actions are coordinated. The SDT interprets this to include planned outages when they are known.

Therefore, the SDT has not included a standard lead time in the revised requirements.

DIRECTIVE: S- Ref 10378 - Consider TVAs suggestion for including breaker outages within the meaning of facilities that are subject to advance notice for planned outages.

Para 1622

"Consider TVAs suggestion for including breaker outages within the meaning of facilities that are subject to advance notice for planned outages."

Assigned: Project 2007-03 - Real-Time Transmission Operations

New data specifications in proposed TOP-003-2 handle this concern.

Status: In Drafting Delivery: 2012

Solution Details:

New data specifications in proposed TOP-003-2 handle this concern.

DIRECTIVE: S- Ref 10339 - Clarify the term corrective action. 1440. We believe that [t]he transmission operator shall take corrective action as soon as possible refers to transmission operators taking operator control actions. It does not refer to troubleshooting

Para 1441

"Clarify the term corrective action. 1440. We believe that [t]he transmission operator shall take corrective action as soon as possible refers to transmission operators taking operator control actions. It does not refer to troubleshooting, repairing or replacing failed relays or equipment, etc., since these time-consuming corrective actions would prolong the risk of cascading failures to the Bulk-Power System. 1441. We direct the ERO to clarify the term corrective action consistent with this discussion when it modifies PRC-001-1 in the Reliability Standards development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

Status: In Drafting Delivery: 2012

Solution Details:

Addressed in Requirement R5 in proposed TOP-001-2 where the Transmission Operator coordinates its operations.

DIRECTIVE: S- Ref 10380 - Para 1630 - Modify requirement R4 to state that the system should be restored to respect proven limits as soon as possible taking no more than 30 minutes.

Para 1636

"1630 - Modify requirement R4 to state that the system should be restored to respect proven limits as soon as possible taking no more than 30 minutes."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Replaced by proposed TOP-001-2, R7 through R11. Tv is more stringent than the existing 30 minute requirement for IROLs and the selected SOLs are now tied to the specific ratings from which the SOLs were derived.

Status: In Drafting Delivery: 2012

Solution Details:

Replaced by proposed TOP-001-2, R7 through R11. Tv is more stringent than the existing 30 minute requirement for IROLs and the selected SOLs are now tied to the specific ratings from which the SOLs were derived.

Unknown states, in this context, cannot exist because valid operating limits have been determined for all Facilities in a TOPs footprint. The SDT feels that proposed EOP-001-2 dealing with emergency operations planning covers the general intent of being prepared to react to Emergencies.

DIRECTIVE: S- Ref 10342 - Para 1445. In response to MidAmericans request that we clarify the term immediately in our proposed second directive, we direct the ERO, in the Reliability Standards development process, to determine the appropriate amount of time after the

Para 1445

"1445. In response to MidAmericans request that we clarify the term immediately in our proposed second directive, we direct the ERO, in the Reliability Standards development process, to determine the appropriate amount of time after the detection of relay failures, in which relevant transmission operators must be informed of such failures."

Assigned: Project 2007-03 - Real-Time Transmission Operations

See proposed TOP-003-2

Status: In Drafting Delivery: 2012

Solution Details:

See proposed TOP-003-2

DIRECTIVE: S- Ref 10382 - Consider Santa Claras comments regarding changes to requirement R2 in the standards development process. (Santa Clara states that Requirement R2 of the Reliability Standard should be revised to include frequency monitoring in addition to th

Para 1639

"Consider Santa Claras comments regarding changes to requirement R2 in the standards development process. (Santa Clara states that Requirement R2 of the Reliability Standard should be revised to include frequency monitoring in addition to the monitoring of voltage, real and reactive power flows.)"

Assigned: Project 2007-03 - Real-Time Transmission Operations

This is covered as part of the new data specification requirements in proposed TOP-003-2 for the Transmission Operator & Balancing Authority. The Reliability Coordinator is covered by approved IRO-010-1, Requirement R3.

Status: In Drafting Delivery: 2012

Solution Details:

This is covered as part of the new data specification requirements in proposed TOP-003-2 for the Transmission Operator & Balancing Authority. The Reliability Coordinator is covered by approved IRO-010-1, Requirement R3.

DIRECTIVE: S- Ref 10383 - Para 1628 - Perform a survey of the prevailing operating practices and actual operating experiences surrounding IROL limits.

Para 1637

"1628 - Perform a survey of the prevailing operating practices and actual operating experiences surrounding IROL limits."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Not within the scope of the SDT.

Status: In Drafting Delivery: 2012

Solution Details:

Not within the scope of the SDT.

DIRECTIVE: S- Ref 10384 - Para 1651 - Include information about the operational status of special protection systems and power system stabilizers in Attachment 1.

Para 1648

"1651 - Include information about the operational status of special protection systems and power system stabilizers in Attachment 1."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2.

Status: In Drafting Delivery: 2012

Solution Details:

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2. R1. Each Transmission Operator and Balancing Authority shall have a documented specification for the data necessary for it to perform its required Operational Planning Analyses and Real-time Monitoring.

DIRECTIVE: S- Ref 10386 - Consider FirstEnergy's modifications to Attachment 1 and ISO-NEs recommended revision to requirement R4 in the standards development process. ISO-NE recommends that the reference to purchasing-selling entity in Requirement R4 should be repl

Para 1650

"Consider FirstEnergy's modifications to Attachment 1 and ISO-NEs recommended revision to requirement R4 in the standards development process.

ISO-NE recommends that the reference to purchasing-selling entity in Requirement R4 should be replaced with generator owner, transmission owner, and LSE."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2.

Requirement R4 has been superseded by proposed TOP-003-2 which does include the indicated entities and has deleted PSE

Status: In Drafting Delivery: 2012

Solution Details:

Attachment 1 has been deleted and replaced by the new data specification requirement in proposed TOP-003-2. Requirement R4 has been superseded by proposed TOP-003-2 which does include the indicated entities and has deleted PSE

DIRECTIVE: S- Ref 10388 - Para 1653 - Clarify the meaning of appropriate technical information concerning protective relays.

Para 1663

"1653 - Clarify the meaning of appropriate technical information concerning protective relays."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The term is no longer used.

Status: In Drafting Delivery: 2012

Solution Details:

The term is no longer used.

DIRECTIVE: S- Ref 10389 - Para 1658 - Consider APPAs comments regarding missing measures in the standards development process.

Para 1664

"Para 1664

The ERO should consider APPAs comment regarding the missing Measures in the EROs Reliability Standards development process.

Para 1658

APPA states that the EROs filing on November 15, 2006 includes new Measures M1 through M6, which only measure Requirements R1, R2, R4, R5 and R7.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

Measures have been assigned to all requirements.

Status: In Drafting Delivery: 2012

Solution Details:

Measures have been assigned to all requirements.

DIRECTIVE: S- Ref 10391 - Para 1671 - Consider the NRCs comments on voltage requirements as part of the standards development process.

Para 1673

"Para 1673

NRC has raised some significant issues regarding the consideration of nuclear power plants voltage requirements. Consistent with our general approach in this Final Rule, we direct the ERO to consider NRCs comments in the Reliability Standards development process when addressing TOP-007-0 as part of its Work Plan.

Para 1671

NRC states that some nuclear power plant voltage requirements would result in SOL, i.e., the nuclear power plant voltage limits would be an SOL as a result of the minimum and maximum voltages required at the nuclear power plant switchyard, which typically has a tighter operating band (a higher minimum and a lower maximum) than other nodes in the system. It therefore recommends adding a new requirement that states as follows: Following discovery of a potential contingency that could result in an SOL being exceeded at a nuclear power plant (e.g., at post-trip voltage), the transmission owner shall notify the nuclear power plant operator as soon as possible but not longer than 30 minutes if the contingency has not been corrected. NRC also suggests modifying the Measures and Compliance sections and Table 1 to account for the new requirement, and provides specific language to be included in those places.

"

Assigned: Project 2007-03 - Real-Time Transmission Operations

Next day analysis is required in proposed TOP-002-3, R1...

Status: In Drafting Delivery: 2012

Solution Details:

Next day analysis is required in proposed TOP-002-3, R1. A specified minimum voltage limit is by definition an SOL which must be studied in proposed TOP-002-3, Requirement R1. Additionally, approved NUC-001-2, Requirements R3 & R4.1 require the transmission entity to incorporate NPIRs in their planning and operating analyses. Approved FAC-011-2 and approved FAC-014-2, Requirement R2 require the Transmission Operator to incorporate SOLs into their analyses. All data required for Operational Planning Analyses is stipulated in proposed TOP-003-2.

Approved NUC-001-2, Requirements R3 & R8 covers the information flowing back to the nuclear plant operator.

DIRECTIVE: S- Ref 10392 - Para 1678 - Consider APPAs comments regarding missing measures in the standards development process.

Para 1681

"1678 - Consider APPAs comments regarding missing measures in the standards development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Measures have been assigned to all requirements.

Status: In Drafting Delivery: 2012

Solution Details:

Measures have been assigned to all requirements.

DIRECTIVE: S- Ref 10373 - Address critical energy infrastructure confidentiality as part of the routine standard development process.

Para 1600

"Address critical energy infrastructure confidentiality as part of the routine standard development process."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Restrictions due to confidentiality have been eliminated by re-writing the data specification requirements in proposed TOP-003-2.

Status: In Drafting Delivery: 2012

Solution Details:

Restrictions due to confidentiality have been eliminated by re-writing the data specification requirements in proposed TOP-003-2.

DIRECTIVE: S- Ref 10374 - Inform the nuclear plant operator in real-time if the auxiliary power bus voltages cannot be maintained.

Para 1603

"Inform the nuclear plant operator in real-time if the auxiliary power bus voltages cannot be maintained."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Next day analysis is required in proposed TOP-002-3, R1...

Status: In Drafting Delivery: 2012

Solution Details:

Next day analysis is required in proposed TOP-002-3, R1. A specified minimum voltage limit is by definition an SOL which must be studied in proposed TOP-002-3, Requirement R1. Additionally, approved NUC-001-2, Requirements R3 & R4.1 require the transmission entity to incorporate NPIRs in their planning and operating analyses. Approved FAC-011-2 and approved FAC-014-2, Requirement R2 require the Transmission Operator to incorporate SOLs into their analyses. All data required for Operational Planning Analyses is stipulated in proposed TOP-003-2.

Approved NUC-001-2, Requirements R3 & R8 covers the information flowing back to the nuclear plant operator.

DIRECTIVE: S- Ref 10368 - Clarify the definition of emergency and define the criteria for entering into the various states. Also define the authority for declaring these states.

Para 1585

"Clarify the definition of emergency and define the criteria for entering into the various states. Also define the authority for declaring these states."

Assigned: Project 2007-03 - Real-Time Transmission Operations

The RTOSDT feels that the TOP-001 standard should be restricted to Transmission System operations and that definition of operating states more correctly belong in EOP-001 as pointed out in Order 693, paragraph 560...

Status: In Drafting Delivery: 2012

Solution Details:

The RTOSDT feels that the TOP-001 standard should be restricted to Transmission System operations and that definition of operating states more correctly belong in EOP-001 as pointed out in Order 693, paragraph 560. To make certain that the issue is handled there; the RTOSDT has entered an official item in the NERC database of project issues in this regard. This will require the SDT working on revisions to EOP-001 to formally address this concern. EOP-001 is listed in the Reliability Standards Development Plan under Project 2009-03 which has not yet started.

The TOP standards have been re-written to specifically address what a Transmission Operator is responsible for. The proposed TOP requirements are no longer restricted to the undefined term operating emergency and are now more inclusive and stringent than the previous requirement. Indeed, the undefined term operating emergency is no longer utilized in the proposed revisions. Therefore, any delay in defining operating states in the EOP Project has no effect on the TOP standards.

DIRECTIVE: S- Ref 10375 - Commenters did not take issue with the proposed interpretation of the term deliverability as the ability to deliver the output from generation resources to firm load without any reliability criteria violations for plausible generation dispatch

Para 1606

"Commenters did not take issue with the proposed interpretation of the term deliverability as the ability to deliver the output from generation resources to firm load without any reliability criteria violations for plausible generation dispatches. The Commission adopts this proposed interpretation. In order to ensure the necessary clarity, the term as used in Requirement R7 of TOP-002-2 should be understood in this manner."

Assigned: Project 2007-03 - Real-Time Transmission Operations

Deliverability and limits are included in Operational Planning Analysis in TOP-002-3, Requirement R1.

Status: In Drafting Delivery: 2012

Solution Details:

Deliverability and limits are included in Operational Planning Analysis in TOP-002-3, Requirement R1.

Operational Planning Analysis contains deliverability and much more and is thus more stringent than the Order. Limit violations in the Operational Planning Analysis will show any deliverability problems regardless of type and proposed requirements mandate that these issues be resolved. In addition, the proposed requirements clearly state that an individual entity, the Transmission Operator, is wholly responsible for these concerns which is an improvement over the previous vaguely worded requirement that placed this responsibility with the Balancing Authority which has no control over the issues involved.

DIRECTIVE: S- Ref 10379 - Require any facility, that in the opinion of the reliability coordinator, balancing authority, or transmission operator, will have a direct impact on the reliability of the bulk power system be subject to the requirement R1 for planned outa

Para 1624

"Require any facility, that in the opinion of the reliability coordinator, balancing authority, or transmission operator, will have a direct impact on the reliability of the bulk power system be subject to the requirement R1 for planned outage coordination"

Assigned: Project 2007-03 - Real-Time Transmission Operations

New data specifications in proposed TOP-003-2, Requirement R1 (and bullets) handle this concern.

Status: In Drafting Delivery: 2012

Solution Details:

New data specifications in proposed TOP-003-2, Requirement R1 (and bullets) handle this concern.

Project 2007-06 System Protection Coordination

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10344 - Para's 1420 & 1449. Measures and levels of non-compliance incorrectly reference non-existent requirements.

Due 3/22/2013

Para 1446

"1420 & 1449. Measures and levels of non-compliance incorrectly reference non-existent requirements.

1420. In the NOPR, the Commission proposed to approve PRC-001-0 as mandatory and enforceable. In addition, the Commission proposed to direct NERC to submit modifications to PRC-001-0 (proposed directives) that included: (1) Measures and Levels of Non-Compliance...

1423. APPA states that while it agrees that PRC-001-1 is sufficient for approval, since the new Measures only partially address the Requirements, and in some cases refer to non-existent Requirements, no penalties should be levied for violations of Requirements that have no accompanying Measures.

1446. We agree with APPA that the added Measures and Levels of Non-Compliance incorrectly reference non-existent requirements. We direct the ERO to revise the references accordingly.

1449. The Commission approves Reliability Standard PRC-001-1 as mandatory and enforceable. In addition, the Commission directs the ERO to develop modifications to PRC-001-1 through the Reliability Standards development process that: (1) correct the references for Requirements and...

"

Assigned: Project 2007-06 - System Protection Coordination

The DT is re-writing the measures and replacing levels of non-compliance with VSLs and correcting any references.

Status: In Drafting Delivery: 2013

Solution Details:

The DT is re-writing the measures and replacing levels of non-compliance with VSLs and correcting all references.

Project 2007-09 Generator Verification

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10365 - Requires all generators to ride through the same set of category B and C contingencies as required by wind generators in Order No. 661, or to simulate without this capability as tripping.

Para 1787

"1787. In the NOPR, the Commission identified an implicit assumption in the TPL Reliability Standards that all generators are required to ride through the same types of voltage disturbances and remain in service after the fault is cleared. This implicit assumption should be made explicit. Commenters agree with the proposed requirement for all generators to ride through the same set of Category B and C events as required for wind generators. The Commission understands that NRC has both degraded voltage and loss of voltage requirements. The degraded voltage requirement allows the voltage at the auxiliary power system busses to go below the minimum value for a time frame that is usually much longer than normal fault clearing time. If a specific nuclear power plant has an NRC requirement that would force it to trip off-line if its auxiliary power system voltage was depressed below some minimum voltage, the simulation should include the tripping of the plant in addition to the faulted facilities. In this regard, the Commission agrees that NRC requirements should be used when implementing the Reliability Standards. Using NRC requirements as input will assure that there is consistency between the Reliability Standards and the NRC requirement that the system is accurately modeled. Accordingly, the Commission directs the ERO to modify the Reliability Standard to explicitly require either that all generators are capable of riding through the same set of Category B and C contingencies, as required by wind generators in Order No. 661, or that those generators that cannot ride through be simulated as tripping. If a generator trips due to low voltage from a single contingency, the initial trip of the faulted element and the resulting trip of the generator would be governed by Category B contingencies and performance criteria."

Assigned: Project 2007-09 - Generator Verification

The GVSDT believes that Requirement R2 and the voltage ride through curves in PRC-024 Attachment 2 accomplish this.
Status: In Drafting Delivery: 2013

Solution Details:

The GVSDT believes that Requirement R2 and the voltage ride through curves in PRC-024 Attachment 2 accomplish this. While the curves were developed based on three phase normally cleared faults located at a generating plant substation (the most severe condition for generating equipment), the curves cover voltages depressed as low as 0.65 per unit for two seconds, which the GVSDT feels will cover the Category B and C events of concern to the Commission. Requirement R5 directs all new generating facilities following approval of this standard to be designed, built and maintained so that they are able to ride through the excursions defined in the standard. For existing units, Requirement R3 allows an exemption from portions of the ride through curves in PRC-024 Attachments 1 and 2 for documented technical reasons, but directs those generators to communicate that limitation to the RC, PC, TOP and TP so its performance can be modeled correctly. In addition, Requirement R4 allows the RC, PC, TOP, or TP to request an estimate of performance (ride through duration) from the GO for a defined excursion. The estimate would cover process upsets to the generating equipment that might result in a delayed trip, even if the generator protection itself did not cause a trip. The GVSDT believes that Requirement R3 allows NRC requirements to supersede portions of the voltage and frequency ride through criteria in PRC-024-1. This Requirement allows generators an exemption from portions of the ride through curves for documented technical limitations. The GVSDT believes that NRC requirements qualify as technical limitations for the purposes of this standard.

DIRECTIVE: S- Ref 10318 - Similarly, we respond to Constellation that any modification of the Levels of Non-Compliance in this Reliability Standard should be reviewed in the ERO Reliability Standards development process.

Para 1310

"Similarly, we respond to Constellation that any modification of the Levels of Non-Compliance in this Reliability Standard should be reviewed in the ERO Reliability Standards development process."

Assigned: Project 2007-09 - Generator Verification

The team has developed Violation Severity Levels that comport with the requirements of the standard as well as NERC and FERC guidelines.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed Violation Severity Levels that comport with the requirements of the standard as well as NERC and FERC guidelines.

DIRECTIVE: S- Ref 10320 - Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net reactive power capability verification within 30 calendar days of approval. The confusion centers on approval and when the

Para 1322

"Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net reactive power capability verification within 30 calendar days of approval. The confusion centers on approval and when the 30-day period starts."

Assigned: Project 2007-09 - Generator Verification

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications. The RRO is no longer in the standards.

DIRECTIVE: S- Ref 10319 - Require verification of reactive power capability at multiple points over a units operating range.

Para 1321

"Require verification of reactive power capability at multiple points over a units operating range."

Assigned: Project 2007-09 - Generator Verification

The team has developed Attachment 1 with proper guidance on the verification process and the tests to be conducted.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed Attachment 1 with proper guidance on the verification process and the tests to be conducted. Language is also included to provide exceptions based on unit or system limitations.

DIRECTIVE: S- Ref 10316 - Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net real power capability verification within 30 calendar days of approval. The confusion centers on approval and when the 3

Para 1311

"Clarify requirement R2 that specifies that the regional reliability organization shall provide generator gross and net real power capability verification within 30 calendar days of approval. The confusion centers on approval and when the 30-day period starts."

Assigned: Project 2007-09 - Generator Verification

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications. The RRO is no longer in the standards.

Status: In Drafting Delivery: 2013

Solution Details:

The team has developed specific requirements for the applicable entities to provide model data and to perform verifications. The RRO is no longer in the standards.

DIRECTIVE: S- Ref 10315 - Document test conditions and the relationships between test conditions and generator output so that the amount of power that can be expected to be delivered from a generator at different conditions can be determined.

Para 1310

"Document test conditions and the relationships between test conditions and generator output so that the amount of power that can be expected to be delivered from a generator at different conditions can be determined."

Assigned: Project 2007-09 - Generator Verification

This issue is addressed through use of ambient data collection method that is proposed in the revision of MOD-024.
Current drafting team to complete.

Status: In Drafting Delivery: 2013

Solution Details:

*This issue is addressed through use of ambient data collection method that is proposed in the revision of MOD-024.
Current drafting team to complete.*

Project 2007-11 Disturbance Monitoring

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10345 - Consider if greater consistency can be achieved in the standard as suggested by Otter Tail, APPA, and Alcoa.

Para 1456

"Par 1456

We agree with APPA, Alcoa and Otter Tail that the ERO should consider whether greater consistency can be achieved in this Reliability Standard. In Order No. 672, the Commission also encouraged greater uniformity in the development of Reliability Standards. Consistent with that goal, the Commission directs the ERO to consider APPA, Alcoa and Otter Tails suggestions in the Reliability Standards development process as it modifies PRC-002-1 to provide missing information needed for the Commission to act on this Reliability Standard.

Para 1452 thru 1454

APPA agrees with the Commissions proposed course of action. It states that there are significant and substantive differences between regional procedures due to the characteristics of various regional grids. Further it suggests that NERC and the Regional Entities consider whether they can attain greater consistency on an Interconnection-wide basis in addressing the completion of this Reliability Standard.

Alcoa suggests that the ERO instead of a Regional Entity should define the requirements for DME and the type of report it generates. The requirements and equipment specifications should be consistent throughout North America. In addition, Alcoa suggests that the criteria for installation of such equipment should include the necessary monitoring and recording that contribute to analysis and enhance reliability.

Otter Tail suggests that PRC-002-1 should be developed on an Interconnection-wide basis to ensure consistency and promote reliability of the Bulk-Power System.

"

Assigned: Project 2007-11 - Disturbance Monitoring

The team is conducting an analysis to determine the locations as best supported by technical data. Current drafting team to complete

Status: In Drafting Delivery: 2015

Solution Details:

The team is conducting an analysis to determine the locations as best supported by technical data. Current drafting team to complete

Project 2007-12 - Frequency Response

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10017 - Define the necessary amount of frequency response needed for reliable operation for each balancing authority with methods of obtaining and measuring that the frequency response is achieved.

Due 5/31/2012

Para 372

"The Commission is not persuaded by the commenters. We conclude that the minimum frequency response needed for Reliable Operation should be defined and methods of obtaining the frequency response identified. In addition to the ERCOT experience, EEI provides an additional example that underscores the Commission's concern in this area with its discussion of the ISO-NE frequency oscillations resulting from the August 14, 2003 blackout. Severe oscillations were observed in the ISO-NE frequency when it separated from the Eastern Interconnection during the August 14, 2003 blackout. (see Footnote 177 of Order 693) The ISO-NE operators acted quickly to reduce the bias setting so as to eliminate the self-induced frequency oscillations before they affected system reliability. This apparent mismatch between the bias and the actual frequency response might have caused the ISO-NE system to cascade if it had not been for the quick actions of its operators. Therefore, we direct the ERO to either modify this Reliability Standard or develop a new Reliability Standard that defines the necessary amount of frequency response needed for Reliable Operation and methods of obtaining and measuring that frequency response is available."

Assigned: Project 2007-12 - Frequency Response

The SDT is addressing this in the draft of the proposed BAL-003-1 standard.

Status: In Drafting Delivery: 2011

Solution Details:

The SDT is defining the amount of Frequency Response necessary for reliable operation, defining the methods for obtaining Frequency Response, measuring Frequency Response and the periodicity of Frequency Response Surveys within the draft BAL-003-1 standard.

DIRECTIVE: S- Ref 10016 -Determine the appropriate periodicity of frequency response surveys necessary to ensure requirement R2 and other requirements are being met; also modify measure M1 based on this determination.

Due 5/31/2012

Para 369

"Determine the appropriate periodicity of frequency response surveys necessary to ensure requirement R2 and other requirements are being met; also modify measure M1 based on this determination."

Assigned: Project 2007-12 - Frequency Response

The SDT is addressing this in the draft of the proposed BAL-003-1 standard.

Status: In Drafting Delivery: 2011

Solution Details:

The SDT is defining the amount of Frequency Response necessary for reliable operation, defining the methods for obtaining Frequency Response, measuring Frequency Response and the periodicity of Frequency Response Surveys within the draft BAL-003-1 standard.

Project 2007-17 Protection System Maintenance and Testing

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10358 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Due 4/10/2012

Para 1516

"1516. The Commission believes that the proposal is presently part of the process. The Commission approves Reliability Standard PRC-011-0 as mandatory and enforceable. In addition, the Commission directs the ERO to submit a modification to PRC-011-0 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, Table 2, and Table 3 for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, Table 2, and Table 3 for time-based programs. Also adding a requirement allowing performance-based maintenance intervals.

DIRECTIVE: S- Ref 10355 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Due 4/10/2012

Para 1492

"1492. In addition, the Commission directs the ERO to develop a modification to PRC-008-0 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 3 for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 3 for time-based programs. Also adding a requirement allowing performance-based maintenance intervals.

DIRECTIVE: S- Ref 10362 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Para 1546

"Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard for time-based programs. Specific minimum maintenance intervals are prescribed in Tables 1-1 through 1-5, Table 2, and Table 3.

DIRECTIVE: S- Ref 10352 - Consider FirstEnergys and ISO-NEs suggestions to combine PRC-005, PRC-008, PRC-011, and PRC-017 into a single standard.

Para 1475

"Consider FirstEnergys and ISO-NEs suggestions to combine PRC-005, PRC-008, PRC-011, and PRC-017 into a single standard."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

These suggestions were adopted. The SDT is combining the four legacy standards into one.

Status: In Drafting Delivery: 2012

Solution Details:

These suggestions were adopted. The SDT is combining the four legacy standards into one.

DIRECTIVE: S- Ref 10351 - Maintenance and testing of a protection system must be carried out within a maximum allowable time interval that is appropriate for the type of protection system and its impact on the reliability of the bulk power system.

Due 4/10/2012

Para 1475

"1475. In addition, for the reasons discussed in the NOPR, the Commission directs the ERO to develop a modification to PRC-005-1 through the Reliability Standards development process that includes a requirement that maintenance and testing of a protection system must be carried out within a maximum allowable interval that is appropriate to the type of the protection system and its impact on the reliability of the Bulk-Power System."

Assigned: Project 2007-17 - Protection System Maintenance and Testing

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 2 for time-based programs.

Status: In Drafting Delivery: 2012

Solution Details:

Specific maximum allowable intervals are included in the draft standard within Tables 1-1 through 1-5, and Table 2 for time-based programs. Also adding a requirement allowing performance-based maintenance intervals.

Project 2008-01 Voltage and Reactive Control

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10434 - Para 1869 We recognize that our proposed modification does not identify what definitive requirements the Reliability Standard should use for established limits and sufficient reactive resources. Rather, the ERO should develop appropriate

Para 1869

"1869. We recognize that our proposed modification does not identify what definitive requirements the Reliability Standard should use for established limits and sufficient reactive resources. Rather, the ERO should develop appropriate requirements that address the Commission's concerns through the ERO Reliability Standards development process. The Commission believes that the concerns of Dynegy, EEI and MISO are best addressed by the ERO in the Reliability Standards development process."

Assigned: Project 2008-01 - Voltage and Reactive Control

TBD

Status: In Drafting Delivery: 2014

Solution Details:

TBD

DIRECTIVE: S- Ref 10433 - In the NOPR, the Commission expressed concern that the technical requirements containing terms such as established limits or sufficient reactive resources are not definitive enough to address voltage instability and ensure reliable operation

Para 1868

"In the NOPR, the Commission expressed concern that the technical requirements containing terms such as established limits or sufficient reactive resources are not definitive enough to address voltage instability and ensure reliable operations. To address this concern, the NOPR proposed directing the ERO to modify VAR-001-1 to include more detailed and definitive requirements on established limits and sufficient reactive resources and identify acceptable margins (i.e. voltage and/or reactive power margins) above voltage instability points to prevent voltage instability and to ensure reliable operations. We will keep this direction, and direct the ERO to include this modification in this Reliability Standard."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase Current drafting team to complete

DIRECTIVE: S- Ref 10441 - The Commission expects that the appropriate power factor range developed for the interface between the bulk electric system and the LSE from VAR-001-1 would be used as an input to the transmission and operations planning Reliability Standard

Para 1863

"The Commission expects that the appropriate power factor range developed for the interface between the bulk electric system and the LSE from VAR-001-1 would be used as an input to the transmission and operations planning Reliability Standards. The range of power factors developed in this Reliability Standard provides the input to the range of power factors identified in the modifications to the TPL Reliability Standards. In the NOPR, the Commission suggested that sensitivity studies for the TPL Reliability Standards should consider the range of load power factors."

Assigned: Project 2008-01 - Voltage and Reactive Control

Considered - Address in Next Phase

Status: In Drafting Delivery: 2014

Solution Details:

Considered - Address in Next Phase

DIRECTIVE: S- Ref 10442 - Consider Dynegys suggestion to improve the standard. Paragraph 1883. Dynegy believes that VAR-002-1 should be modified to require more detailed and definitive requirements when defining the time frame associated with an incident of non com

Para 1885

"Consider Dynegys suggestion to improve the standard. Paragraph 1883. Dynegy believes that VAR-002-1 should be modified to require more detailed and definitive requirements when defining the time frame associated with an incident of non compliance (i.e., each 4-second scan, 10-minute integrated value, hourly integrated value). Dynegy states that, as written, this Reliability Standard does not define the time frame associated with an incident of non-compliance, but apparently leaves this decision to the transmission operator. Dynegy believes that either more detail should be added to the Reliability Standard to cure this omission, or the Reliability Standard should require the transmission operator to have a technical basis for setting the time frame that takes into account system needs and any limitations of the generator. Dynegy believes that this approach will eliminate the potential for undue discrimination and the imposition of overly conservative or excessively wide time frame requirements, both of which could be detrimental to grid reliability."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10440 - Address the power factor range at the interface between LSEs and the transmission grid. Paragraph 1861. In the NOPR, the Commission asked for comments on acceptable ranges of net power factor at the interface at which the LSEs receive serv

Para 1862

"Address the power factor range at the interface between LSEs and the transmission grid. Paragraph 1861. In the NOPR, the Commission asked for comments on acceptable ranges of net power factor at the interface at which the LSEs receive service from the Bulk-Power System during normal and extreme load conditions. The Commission asked for these comments in response to concerns that during high loads, if the power factor at the interface between many LSEs and the Bulk-Power System is so low as to result in low voltages at key busses on the Bulk-Power System, then there is risk for voltage collapse. The Commission believes that Reliability Standard VAR-001-1 is an appropriate place for the ERO to take steps to address these concerns by setting out requirements for transmission owners and LSEs to maintain an appropriate power factor range at their interface. We direct the ERO to develop appropriate modifications to this Reliability Standard to address the power factor range at the interface between LSEs and the Bulk-Power System. 1862. We direct the ERO to include APPAs concern in the Reliability Standards development process. We note that transmission operators currently have access to data through their energy management systems to determine a range of power factors at which load operates during various conditions, and we suggest that the ERO use this type of data as a starting point for developing this modification. 1863. The Commission expects that the appropriate power factor range developed for the interface between the bulk electric system and the LSE from VAR-001-1 would be used as an input to the transmission and operations planning Reliability Standards. The range of power factors developed in this Reliability Standard provides the input to the range of power factors identified in the modifications to the TPL Reliability Standards. In the NOPR, the Commission suggested that sensitivity studies for the TPL Reliability Standards should consider the range of load power factors."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10437 - Perform voltage analysis periodically, using on-line techniques where commercially available and off-line techniques where not available on-line, to assist real-time operations, for areas susceptible to voltage instability. Paragraph 1875.

Para 1875

"Perform voltage analysis periodically, using on-line techniques where commercially available and off-line techniques where not available on-line, to assist real-time operations, for areas susceptible to voltage instability. Paragraph 1875. In response to the concerns of APPA, SDG&E and EEI on the availability of tools, the Commission recognizes that transient voltage stability analysis is often conducted as an offline study, and that steady-state voltage stability analysis can be done online. The Commission clarifies that it does not wish to require anyone to use tools that are not validated for real-time operations. Taking these comments into consideration, the Commission clarifies its proposed modification from the NOPR. For the Final Rule, we direct the ERO, through its Reliability Standards development process, to modify Reliability Standard VAR-001-1 to include Requirements to perform voltage stability analysis periodically, using online techniques where commercially-available, and offline simulation tools where online tools are not available, to assist real-time operations. The ERO should consider the available technologies and software as it develops this modification to VAR-001-1 and identify a process to assure that the Reliability Standard is not limiting the application of validated software or other tools."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Current drafting team to complete

DIRECTIVE: S- Ref 10436 - Address the concerns of Dynegy, EEI, and MISO through the standards development process. Paragraph 1864. Dynegy supports the Commissions proposal to include more definitive requirements on established limits and sufficient reactive resourc

Para 1869

"Address the concerns of Dynegy, EEI, and MISO through the standards development process. Paragraph 1864. Dynegy supports the Commissions proposal to include more definitive requirements on established limits and sufficient reactive resources. It recommends that VAR-001-1 be further modified to require the transmission operator to have more detailed and definitive requirements when setting the voltage schedule and associated tolerance band that is to be maintained by the generator operator. Dynegy states that the transmission operator should not be allowed to arbitrarily set these values, but rather should be required to have a technical basis for setting the required voltage schedule and tolerance band that takes into account system needs and any limitations of the specific generator. Dynegy believes that such a requirement would eliminate the potential for undue discrimination, as well as the possibility of imposing overly conservative and burdensome voltage schedules and tolerance bands on generator operators that could be detrimental to grid reliability, or conversely, the imposition of too low a voltage schedule and too wide a tolerance band that could also be detrimental to grid reliability. 1865. While MISO supports the concept of including more detailed requirements, it believes that there needs to be a definitive reason for establishing voltage schedules and tolerances, and that any situations monitored in this Reliability Standard need to be limited to core reliability requirements. 1866. EEI seeks clarification about whether the Commission is suggesting that reactive requirements should aim for significantly greater precision, especially in terms of planning for various emergency conditions. If so, EEI cautions the Commission against putting too many eggs in the reactive power basket.⁴⁷⁴ To the extent compliance takes place pursuant to all other modeling and planning assessments under the other Reliability Standards, EEI strongly believes that the Commission should have some high level of confidence that the systems reactive power needs can be met satisfactorily across a broad range of contingencies that planners might reasonably anticipate. Moreover, EEI believes that requirements to successfully predict reactive power requirements in conditions of near-system collapse would require significantly more creative guesswork than solid analysis and contingency planning. For

example, EEI notes that the combinations and permutations of how a voltage collapse could occur on a system as large as the eastern Interconnection are numerous. 1867. EEI suggests that, alternatively, the Commission should consider that reactive power evaluations should be conducted within a process that is documented in detail and includes a range of contingencies that might be reasonably anticipated, because this would avoid the one size fits all problem, where a prescriptive analytical methodology does not fit with a particular system configuration. EEI believes that this flexible approach would provide a more effective planning tool for the industry, while satisfying the Commission's concerns over potentially inadequate reactive reserves. MRO notes that the need for, and method of providing for, reactive resources varies greatly, and if this Reliability Standard is expanded it must be done carefully. MRO believes that all entities should not be required to follow the same methodology to accomplish the goal of a reliable system."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Current drafting team to complete

DIRECTIVE: S- Ref 10432 - Include APPAs comments regarding varying power factor requirements due to system conditions and equipment in the standards development process.

Para 1862

"Include APPAs comments regarding varying power factor requirements due to system conditions and equipment in the standards development process."

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

DIRECTIVE: S- Ref 10430 - Para 1855. Since a reliability coordinator is the highest level of authority overseeing the reliability of the Bulk-Power System, the Commission believes that it is important to include the reliability coordinator as an applicable entity t

Para 1855

"Expand the applicability to include LSEs and reliability coordinators and define the reliability coordinators monitoring responsibilities. 1855. Since a reliability coordinator is the highest level of authority overseeing the reliability of the Bulk-Power System, the Commission believes that it is important to include the reliability coordinator as an applicable entity to assure that adequate voltage and reactive resources are being maintained. As MISO points out, other Reliability Standards address responsibilities of reliability coordinators, but we agree with EEI that it is important to include reliability coordinators in VAR-001-1 as well. Reliability coordinators have responsibilities in the IRO and TOP Reliability Standards, but not the specific responsibilities for voltage levels and reactive resources addressed by VAR-001-1, which have a great impact on system reliability. For example, voltage levels and reactive resources are important factors to ensure that IROs are valid and operating voltages are within limits, and that reliability coordinators should have responsibilities in VAR-001-1 to monitor that sufficient reactive resources are available for reliable system operations. Accordingly, the ERO should modify VAR-001-1 to include reliability coordinators as applicable entities and include a new requirement(s) that identifies the reliability coordinators monitoring responsibilities.""

Assigned: Project 2008-01 - Voltage and Reactive Control

Project is in SAR development phase. Considered - Address in Next Phase

Status: *In Drafting* Delivery: 2014

Solution Details:

Project is in SAR development phase. Considered - Address in Next Phase

Project 2008-02 Undervoltage Load Shedding

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10364 - Consider FirstEnergy's suggestions to revise requirement R1.3 as part of the standards development process. Paragraph 1564. FirstEnergy comments that Requirement R1.3 requires a simulation of the event, if deemed appropriate by the RRO and

Para 1566

"Consider FirstEnergy's suggestions to revise requirement R1.3 as part of the standards development process. Paragraph 1564. FirstEnergy comments that Requirement R1.3 requires a simulation of the event, if deemed appropriate by the RRO and believes that the applicable entities such as transmission operators may not be able to simulate large system events. FirstEnergy suggests that Requirement R1.3 be revised to state that a simulation of the event, if deemed appropriate, and assisted by the [regional reliability organization]."

Assigned: Project 2008-02 - Undervoltage Load Shedding

Project is in SAR development phase. Future phase

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Future phase

DIRECTIVE: S- Ref 10356 - Require that an integrated and coordinated approach be included in all protection systems on the bulk power system, including generators and transmission lines, generators low-voltage ride-through capabilities, and UFLS and UVLS systems. P

Para 1509

"Require that an integrated and coordinated approach be included in all protection systems on the bulk power system, including generators and transmission lines, generators low-voltage ride-through capabilities, and UFLS and UVLS systems. Paragraph 1509. We appreciate MEAG's feedback to our response in the NOPR. For the reasons discussed in the NOPR, as well as our explanation above, the Commission approves Reliability Standard PRC-010-0 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to PRC-010-0 through the Reliability Standards development process that requires that an integrated and coordinated approach be included in all protection systems on the Bulk-Power System, including generators and transmission lines, generators low voltage ride-through capabilities, and UFLS and UVLS programs."

Assigned: Project 2008-02 - Undervoltage Load Shedding

Project is in SAR development phase. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Project is in SAR development phase. Current drafting team to complete

Project 2008-06 Cyber Security - Order 706

Mandatory Reliability Standards for Critical Infrastructure Protection (Order 706)

DIRECTIVE: S- Ref 10809 - The Commission directs the ERO to modify CIP-005-1 to require some manual review of logs, consistent with our discussion of log sampling below, to improve automated detection settings, even if alerts are employed on the logs.

Due 6/29/2012

Para 526

"The Commission directs the ERO to modify CIP-005-1 to require some manual review of logs, consistent with our discussion of log sampling below, to improve automated detection settings, even if alerts are employed on the logs."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10802 - The Commission adopts the CIP NOPR proposal to direct the ERO to develop modifications to CIP-004-1 to require immediate revocation of access privileges when an employee, contractor or vendor no longer performs a function that requires physical or elect

Due 6/29/2012

Para 460

"The Commission adopts the CIP NOPR proposal to direct the ERO to develop modifications to CIP-004-1 to require immediate revocation of access privileges when an employee, contractor or vendor no longer performs a function that requires physical or electronic access to a critical cyber asset for any reason (including disciplinary action, transfer, retirement, or termination)."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10803 - We also adopt our proposal to direct the ERO to modify Requirement R4 to make clear that unescorted physical access should be denied to individuals that are not identified on the authorization list, with clarification.

Due 6/29/2012

Para 464

"We also adopt our proposal to direct the ERO to modify Requirement R4 to make clear that unescorted physical access should be denied to individuals that are not identified on the authorization list, with clarification."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10805 - We direct the ERO to modify CIP-004-1, and other CIP Reliability Standards as appropriate, through the Reliability Standards development process to address critical cyber assets that are jointly owned or jointly used, consistent with the Commissions det

Due 6/29/2012

Para 476 (Related paragraphs: 473 and 466 thru 468)

"We direct the ERO to modify CIP-004-1, and other CIP Reliability Standards as appropriate, through the Reliability Standards development process to address critical cyber assets that are jointly owned or jointly used, consistent with the Commissions determinations above."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10492 - The Commission adopts the CIP NOPRs proposal to direct the ERO to develop a requirement that each responsible entity must implement a defensive security approach including two or more defensive measures in a defense in depth posture when constructing an electronic security perimeter

Due 6/29/2012

Para 496 (Related Paragraph: 503)

"Para 496

The Commission adopts the CIP NOPRs proposal to direct the ERO to develop a requirement that each responsible entity must implement a defensive security approach including two or more defensive measures in a defense in depth posture when constructing an electronic security perimeter. However, in light of the comments received, the Commission understands that there may be instances in which certain facilities cannot implement defense in depth or where such an approach would harm reliability rather than enhance it. For that reason, the Commission believes that it is appropriate to allow the ERO and the Regional Entities to grant exceptions based on the technical feasibility of implementing defense in depth, consistent with the Commissions determination on technical feasibility above. However, the responsible entity should implement electronic defense in depth measures or justify why it is not doing so pursuant to our discussion of technical feasibility exceptions.

Para 503

In response to Manitobas concern that the proposed additional security measure could delay implementation of the more important requirement of an electronic perimeter for all critical cyber assets, the Commission notes that this Final Rule approves the Reliability Standard as filed by the ERO. The Commission is directing the ERO to revise the Reliability Standard to require two or more defensive measures. Until that Reliability Standard is developed by the ERO and approved by the Commission, responsible entities in the United States will not be required to implement two or more defensive measures.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10493 - The Commission directs that a responsible entity must implement two or more distinct security measures when constructing an electronic security perimeter, the specific requirements should be developed in the Reliability Standards development process.

Due 6/29/2012

Para 502

"The Commission directs that a responsible entity must implement two or more distinct security measures when constructing an electronic security perimeter, the specific requirements should be developed in the Reliability Standards development process."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Oeder 706

DIRECTIVE: S- Ref 10806 - The Commission adopts the CIP NOPRs proposal to direct the ERO to identify examples of specific verification technologies that would satisfy Requirement R2.4, while also allowing compliance pursuant to other technically equivalent measures or technology

Due 6/29/2012

Para 511

"The Commission adopts the CIP NOPRs proposal to direct the ERO to identify examples of specific verification technologies that would satisfy Requirement R2.4, while also allowing compliance pursuant to other technically equivalent measures or technologies."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10845 - The ERO should alleviate Northern Indianas concern that documenting vulnerability test results or any mitigation or remediation plans may reveal system vulnerabilities by providing for such reports to be reviewed under the confidentiality provisions of its Rules of Procedure.

Para 612

"612.The Commission understands Northern Indianas concern that documenting vulnerability test results or any mitigation or remediation plans may reveal system vulnerabilities. The ERO should alleviate this concern by providing for such reports to be reviewed under the confidentiality provisions of its Rules of Procedure."

Assigned: Project 2008-06 - Cyber Security - Order 706

DIRECTIVE: S- Ref 10808 - The Commission directs the ERO to modify CIP-005-1 through the Reliability Standards development process to require manual review of those logs without alerts in shorter than 90 day increments.

Due 6/29/2012

Para 526

"the Commission directs the ERO to modify CIP-005-1 through the Reliability Standards development process to require manual review of those logs without alerts in shorter than 90 day increments."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10800 - The Commission adopts the CIP NOPRs proposal to direct the ERO to modify Requirement R2 of CIP-004-1 to clarify that cyber security training programs are intended to encompass training on the networking hardware and software and other issues of electron

Due 6/29/2012

Para 434

"The Commission adopts the CIP NOPRs proposal to direct the ERO to modify Requirement R2 of CIP-004-1 to clarify that cyber security training programs are intended to encompass training on the networking hardware and software and other issues of electronic interconnectivity supporting the operation and control of critical cyber assets."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10810 - The Commission clarifies its direction with regard to reviewing logs. In directing manual log review, the Commission does not require that every log be reviewed in its entirety. Instead, the ERO could provide, through the Reliability Standards development

Due 6/29/2012

Para 528

"the Commission clarifies its direction with regard to reviewing logs. In directing manual log review, the Commission does not require that every log be reviewed in its entirety. Instead, the ERO could provide, through the Reliability Standards development process, clarification that a responsible entity should perform the manual review of a sampling of log entries or sorted or filtered logs."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10811 - We adopt the EROs proposal to provide for active vulnerability assessments rather than full live vulnerability assessments.

Due 6/29/2012

Para 541

"We adopt the EROs proposal to provide for active vulnerability assessments rather than full live vulnerability assessments."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10812 - The Commission adopts the EROs recommendation of requiring active vulnerability assessments of test systems.

Due 6/29/2012

Para 542

"the Commission adopts the EROs recommendation of requiring active vulnerability assessments of test systems."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10813 - The Commission directs the ERO to revise the Reliability Standard so that annual vulnerability assessments are sufficient, unless a significant change is made to the electronic security perimeter or defense in depth measure, rather than with every modification.

Due 6/29/2012

Para 544

"the Commission directs the ERO to revise the Reliability Standard so that annual vulnerability assessments are sufficient, unless a significant change is made to the electronic security perimeter or defense in depth measure, rather than with every modification."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10814 - The Commission directs the ERO to determine, through the Reliability Standards development process, what would constitute a modification that would require an active vulnerability assessment

Due 6/29/2012

Para 544

"we are directing the ERO to determine, through the Reliability Standards development process, what would constitute a modification that would require an active vulnerability assessment"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10514 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify this CIP Reliability Standard to state that a responsible entity must, at a minimum, implement two or more different security procedures when establishing a physical security perimeter around critical cyber assets.

Para 572

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify this CIP Reliability Standard to state that a responsible entity must, at a minimum, implement two or more different security procedures when establishing a physical security perimeter around critical cyber assets."

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: In Drafting Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10807 - The Commission adopts the CIP NOPR proposal to require the ERO to modify CIP-005-1 to require logs to be reviewed more frequently than 90 days

Due 6/29/2012

Para 525

"The Commission adopts the CIP NOPR proposal to require the ERO to modify CIP-005-1 to require logs to be reviewed more frequently than 90 days"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10794 - The Commission directs the ERO to consider the comment from ISA99 Team [ISA99 Team objects to the exclusion of communications links from CIP-002-1 and non-routable protocols from critical cyber assets, arguing that both are key elements of associated control systems

Due 6/29/2012

Para 285 (Related paragraph: 278)

"Para 285

As to the conflicting comments of ISA99 Team and Energy Producers, Requirement R2 of CIP-002-1 provides that a critical cyber asset must either have routable protocols or dial-up access. Energy Producers argues that Requirement R2 should be retained, while ISA99 Team argues that devices that use non-routable protocols should also be considered as possible critical cyber assets. We do not find sufficient justification to remove this provision at this time. However, we direct the ERO to consider the comment from ISA99 Team. We also do not find sufficient justification to order the inclusion of communication links in CIP-002-1 at this time.

Para 278

ISA99 Team objects to the exclusion of communications links from CIP-002-1 and non-routable protocols from critical cyber assets, arguing that both are key elements of associated control systems, essential to proper operation of the critical cyber assets, and have been shown to be vulnerable by testing and experience. In contrast, Energy Producers notes that CIP-002-1 as proposed by NERC provides that a critical cyber asset must have either routable protocols or a dial-up connection. Energy Producers states that this is a useful, objective criterion which will assist in the unambiguous identification of such assets and therefore should be retained.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10801 - Consistent with the CIP NOPR, the Commission directs the ERO to determine what, if any, modifications to CIP-004-1 should be made to assure that security trainers are adequately trained themselves.

Due 6/29/2012

Para 435

"Consistent with the CIP NOPR, the Commission directs the ERO to determine what, if any, modifications to CIP-004-1 should be made to assure that security trainers are adequately trained themselves."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10797 - The Commission adopts its CIP NOPR proposal and directs the ERO to clarify that the exceptions mentioned in Requirements R2.3 and R3 of CIP-003-1 do not except responsible entities from the Requirements of the CIP Reliability Standards.

Due 6/29/2012

Para 376

"376. Further, the Commission adopts its CIP NOPR proposal and directs the ERO to clarify that the exceptions mentioned in Requirements R2.3 and R3 of CIP-003-1 do not except responsible entities from the Requirements of the CIP Reliability Standards. In response to EEI, we believe that this clarification is needed because, for example, it is important that a responsible entity understand that exceptions that individually may be acceptable must not lead cumulatively to results that undermine compliance with the Requirements themselves."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10798 - The Commission adopts its CIP NOPR proposal and directs the ERO to develop modifications to Reliability Standards CIP-003-1, CIP-004-1, and/or CIP-007-1, to ensure and make clear that, when access to protected information is revoked, it is done so promptly.

Due 6/29/2012

Para 386

"The Commission adopts its CIP NOPR proposal and directs the ERO to develop modifications to Reliability Standards CIP-003-1, CIP-004-1, and/or CIP-007-1, to ensure and make clear that, when access to protected information is revoked, it is done so promptly."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10474 - The Commission directs the ERO to develop modifications to Requirement R6 of CIP-003-1 to provide an express acknowledgment of the need for the change control and configuration management process to consider accidental consequences and malicious actions along with intentional changes.

Due 6/29/2012

Para 397 and 398

"Para 397 thru 398

Based upon the comments received the Commission is altering its position on how best to address the apparent deficiencies of Requirement R6 in CIP-003-1. The Commission directs the ERO to develop modifications to Requirement R6 of CIP-003-1 to provide an express acknowledgment of the need for the change control and configuration management process to consider accidental consequences and malicious actions along with intentional changes. The Commission believes that these considerations are significant aspects of change control and configuration management that deserve express acknowledgement in the Reliability Standard. While we agree with Entergy that the NIST Security Risk Management Framework offers valuable guidance on how to deal with these matters, our concern here is that the potential problems alluded to be explicitly acknowledged. Our proposal does not speak to how these problems should be addressed. We do not believe that the changes will have burdensome consequences, but we also note that addressing any unnecessary burdens can be dealt with in the Reliability Standards development process.

We agree with ISO/RTO Council that the phrase verification that unintended changes have not been made captures the core issue. Our concern is that some form of verification is performed to detect when unauthorized changes have been made and to identify those changes, as well as ensuring that the proper alerts are issued.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10799 - We direct the ERO to consider, in developing modifications to CIP-004-1, whether identification of core training elements would be beneficial and, if so, develop an appropriate modification to the Reliability Standard.

Due 6/29/2012

Para 433

"We direct the ERO to consider, in developing modifications to CIP-004-1, whether identification of core training elements would be beneficial and, if so, develop an appropriate modification to the Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10815 - The Commission adopts the CIP NOPR proposal and directs the ERO to develop a modification to CIP-006-1 to require a responsible entity to test the physical security measures on critical cyber assets more frequently than every three years,

Para 581

"The Commission adopts the CIP NOPR proposal and directs the ERO to develop a modification to CIP-006-1 to require a responsible entity to test the physical security measures on critical cyber assets more frequently than every three years,"

Assigned: Project 2008-06 - Cyber Security - Order 706

Solution in drafting

Status: In Drafting Delivery: 2010

Solution Details:

Solution in drafting

DIRECTIVE: S- Ref 10832 - The Commission adopts the proposal to enforce this Reliability Standard such that, if an entity has the required recovery plan but does not implement it when the anticipated event or conditions occur, the entity will not be in compliance with this Reliability Standard.

Para 694

"We further adopt the proposal to enforce this Reliability Standard such that, if an entity has the required recovery plan but does not implement it when the anticipated event or conditions occur, the entity will not be in compliance with this Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10513 - we direct the ERO to modify Requirement R4 to require these representative active vulnerability assessments at least once every three years, with subsequent annual paper assessments in the intervening years

Due 6/29/2012

Para 547

"we direct the ERO to modify Requirement R4 to require these representative active vulnerability assessments at least once every three years, with subsequent annual paper assessments in the intervening years"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10554 - Therefore, we direct the ERO to revise CIP-009-1 to require data collection, as provided in the Blackout Report.

Para 710 and 706

"Therefore, we direct the ERO to revise CIP-009-1 to require data collection, as provided in the Blackout Report."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10555 - The Commission adopts, with modifications, the CIP NOPR proposal to develop modifications to CIP-009-1 through the Reliability Standards development process to require an operational exercise once every three years (unless an actual incident occurs, in which case it may suffice), but to permit reliance on table-top exercises annually in other years.

Para 725

"The Commission adopts, with modifications, the CIP NOPR proposal to develop modifications to CIP-009-1 through the Reliability Standards development process to require an operational exercise once every three years (unless an actual incident occurs, in which case it may suffice), but to permit reliance on table-top exercises annually in other years."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10833 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP- 009-1 to incorporate guidance that the backup and restoration processes and procedures required by Requirement R4 should include, at least with regard to significant changes made to the operational control system, verification that they are operational before the backups are stored or relied upon for recovery purposes.

Para 739

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP- 009-1 to incorporate guidance that the backup and restoration processes and procedures required by Requirement R4 should include, at least with regard to significant changes made to the operational control system, verification that they are operational before the backups are stored or relied upon for recovery purposes"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10831 - For the reasons discussed in the CIP NOPR, the Commission adopts the proposal to direct the ERO to modify CIP-009-1 to include a specific requirement to implement a recovery plan.

Para 694

"For the reasons discussed in the CIP NOPR, the Commission adopts the proposal to direct the ERO to modify CIP-009-1 to include a specific requirement to implement a recovery plan."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10458 - The ERO should consider Northern California's suggestion that the ERO establish a process for informal, case-by-case consultations with responsible entities that need assistance in complying with CIP-002-1 (in developing policies and procedures).

Para 258 and 249

"Para 258. . Likewise, the ERO should consider Northern California's suggestion that the ERO establish a formal feedback loop to assist the industry in developing policies and procedures.

Para 249. In contrast, FirstEnergy agrees that NERC should provide guidance to entities without a wide-area view, such as a generation owner or a partial generation owner, on how to approach a risk-based assessment. Likewise, Northern California suggests that NERC establish a process for informal, case-by-case consultations with responsible entities that need assistance in complying with CIP-002-1. In addition, as part of the re-examination of CIP-002-1, Northern California encourages the incorporation of a formalized feedback loop to assist the industry in developing policies and procedures.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:
TBD

DIRECTIVE: S- Ref 10457 - The ERO should consider the issue of a Design-Basis Threat (DBT) profile of potential adversaries as an alternative approach to critical asset identification.

Para 258 and 252

"Para 258. As to Entergys suggestion that the ERO provide a DBT profile of potential adversaries, the ERO should consider this issue in the Reliability Standards development process.

Para 252. Entergy suggests, as an alternative approach to critical asset identification, that the ERO provide a Design-Basis Threat (DBT) a profile of the type, composition, and capabilities of an adversary that would assist the industry as a technical baseline against which to establish the proper designs, controls and processes. Entergy claims that a DBT approach would address many of the Commissions concerns regarding the risk-based methodology. For example, a DBT would focus the appropriate emphasis on the potential consequences from an outage of a critical asset. In addition, a DBT would address the Commissions concern that responsible entities will not have enough guidance in developing a risk-based methodology and not know how to identify a critical asset. Entergy contends that a DBT approach would provide the industry with more certainty in implementing the CIP Reliability Standards.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD
Status: In Drafting Delivery: 2012
Solution Details:
TBD

DIRECTIVE: S- Ref 10462 - The ERO should consider modifying CIP-002-1 to allow an entity to rely upon the assessment of another entity with interest in the matter.

Para 321

"Para 321. SPP and ReliabilityFirst suggest modifying CIP-002-1 to allow an entity to rely upon the assessment of another entity with interest in the matter. We believe that this is a worthwhile suggestion for the ERO to pursue and the ERO should consider this proposal in the Reliability Standards development process. We note that, even without such a provision, an entity such as a small generator operator is not foreclosed from consulting with a balancing authority or other appropriate entity with a wide-area view of the transmission system."

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD
Status: In Drafting Delivery: 2012
Solution Details:
TBD

DIRECTIVE: S- Ref 10483 - The ERO should consider the comments of APPA/LPPC (seeking clarification regarding discretion in reviewing results of personnel risk assessments and in coming to conclusions regarding the subject employees) and SDG&E (seeking refinements on various issues, including an industry-wide protocol for periodic background and criminal checks, and the use of pre-employment background check procedures for current employees) when developing modifications to CIP-004-1.

Para 446 (Related paragraphs 441 and 442)

"Para 446

APPA/LPPC seek clarification regarding discretion in reviewing results of personnel risk assessments and in coming to conclusions regarding the subject employees. SDG&E seeks refinements on various issues, including an industry-wide protocol for periodic background and criminal checks, and the use of pre-employment background check procedures for current employees. The ERO should consider these issues when developing modifications to CIP-004-1 pursuant to the Reliability Standards development process.

Para 441 and 442

APPA/LPPC note that they do not object to the requirement in CIP-004-1 R3.1 that [t]he responsible entity shall ensure that each assessment conducted include, at least,[a] seven-year criminal check on employees with access to critical cyber assets. However, they seek clarification that responsible entities have discretion in reviewing the results of criminal background checks to determine, on a case-by-case basis, whether any crime identified in the background check would disqualify an individual from obtaining access to critical cyber assets.

SDG&E comments that Requirement R3 may require refinement on various issues regarding the personnel risk assessment requirements, including whether state and local law should be pre-empted to permit industry-wide protocols for periodic background and criminal checks on existing employees. SDG&E asks the Commission to clarify that an entity may comply with Requirement R3 by using its existing pre-employment background check procedures for current employees, at seven year intervals, provided that such procedures encompass the required social security verification and criminal background checks. SDG&E argues that, otherwise, applicable state and local laws could prohibit an entity from conducting such periodic checks.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: In Drafting Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10804 - The ERO should consider the suggestions raised by Northern Indiana, SPP and NRECA in the Reliability Standards development process.

Para 475 (Related paragraphs: 470 thru 472)

"Para 475

The ERO should consider the suggestions raised by Northern Indiana, SPP and NRECA in the Reliability Standards development process.

Para 470 thru 472

Northern Indiana is concerned that the Commissions proposal means that a responsible entity must perform risk assessments of the other owners personnel so that such personnel may access a facility that the responsible entity has identified as a critical cyber asset. Northern Indiana argues that such a broad application of the CIP Reliability Standards was never intended and requests that the Commission clarify this point. Northern Indiana sees a conflict with respect to sharing information with other entities that jointly own or jointly use transmission facilities if it is required to maintain a mutual distrust posture. Northern Indiana urges the Commission to provide for flexibility when applying the CIP Reliability Standards to such jointly owned facilities.

SPP believes that jointly operated assets may require contractual agreements to assign responsibility and liability for compliance with the CIP Reliability Standards, similar to the Commissions concern with respect to out-sourced service providers in the CIP NOPR. It is unclear to SPP whether the Commissions recommendations adequately cover the situation where each party is uniquely responsible for a subset of the requirements of the CIP Reliability Standards. For example, one entity may place critical cyber assets within a facility managed by a second entity. The second entity would be fully responsible for the physical security requirements of CIP-006-1, while the first entity would be fully responsible for the system management requirements of CIP-007-1 only for their own assets. A contractual agreement between the two entities should be in place to codify the second entitys physical security responsibilities and, as with out-sourced services, to absolve the first entity of any responsibility for CIP-006-1 beyond ensuring that the cyber assets are within the second entitys physical

security perimeter. SPP recommends that the Commission direct the ERO to include recognition of such contractual agreements in its auditing and sanctioning processes.

NRECA is concerned that the Commissions joint use proposal would cause problems for small entities. NRECA also raises concerns about how disputes regarding joint use facilities will be addressed.

"

Assigned: Project 2008-06 - Cyber Security - Order 706

DIRECTIVE: S- Ref 10817 - The Commission directs the ERO to consider providing further guidance on testing systems in a reference document.

Para 609 Sen 6

"The Commission has discussed issues related to testing environments in CIP-005-1. In that context, the Commission clarifies the CIP NOPR proposal to require differences between the test environment and the production system to be documented. As stated with respect to CIP-005-1, the Commission understands that test systems do not need to exactly match or mirror the production system in order to provide useful test results. However, to perform active testing, the responsible entities should be required at a minimum to create a representative system one that includes the essential equipment and adequately represents the functioning of the production system. We therefore direct the ERO to develop requirements addressing what constitutes a representative system and to modify CIP-007-1 accordingly. The Commission directs the ERO to consider providing further guidance on testing systems in a reference document."

Assigned: Project 2008-06 - Cyber Security - Order 706

DIRECTIVE: S- Ref 10834 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to provide direction that backup practices include regular procedures to ensure verification that backups are successful and backup failures are addressed, so that backups are available for future use.

Para 748

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to provide direction that backup practices include regular procedures to ensure verification that backups are successful and backup failures are addressed, so that backups are available for future use."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10822 - The Reliability Standards development process should decide the degree to which the revised CIP-007-1 describes acceptable log sampling. The ERO could also provide additional guidance on how to create the sampling of log entries, which could be in a reference document.

Para 629

"For the reasons discussed in CIP-005-1, in directing manual log review, the Commission does not require that every log be reviewed in its entirety. Instead, the Commission will allow a manual review of a sampling of log entries or sorted or filtered logs. The Commission recognizes that how a responsible entity determines what sample to review may not be the same for all locations. Therefore, the revised Reliability Standard does not need to prescribe a single method for producing the log sampling. However, how a responsible entity performs this sample review should be detailed in its cyber security policy so that it can be audited to determine compliance with the Reliability Standards. The Reliability Standards development process should decide the degree to which the revised CIP-007-1 describes acceptable log sampling. The ERO could also provide additional guidance on how to create the sampling of log entries, which could be in a

reference document. The final review process, however, must be rigorous enough to enable the entity to detect intrusions by attackers."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10816 - The Commission directs the ERO to develop requirements addressing what constitutes a representative system and to modify CIP-007-1 accordingly.

Due 6/29/2012

Para 609 Sen 5

"The Commission has discussed issues related to testing environments in CIP-005-1. In that context, the Commission clarifies the CIP NOPR proposal to require differences between the test environment and the production system to be documented. As stated with respect to CIP-005-1, the Commission understands that test systems do not need to exactly match or mirror the production system in order to provide useful test results. However, to perform active testing, the responsible entities should be required at a minimum to create a representative system one that includes the essential equipment and adequately represents the functioning of the production system. We therefore direct the ERO to develop requirements addressing what constitutes a representative system and to modify CIP-007-1 accordingly. The Commission directs the ERO to consider providing further guidance on testing systems in a reference document."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10818 - The Commission directs the ERO to revise the Reliability Standard to require each responsible entity to document differences between testing and production environments in a manner consistent with the discussion above.

Due 6/29/2012

Para 610

"we direct the ERO to revise the Reliability Standard to require each responsible entity to document differences between testing and production environments in a manner consistent with the discussion above."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10819 - The Commission cautions that certain changes to a production or test environment might make the differences between the two greater and directs the ERO to take this into account when developing guidance on when to require updated documentation.

Due 6/29/2012

Para 611

"611. With respect to MidAmerican's proposal that the differences between the testing and production environments only be reported when the production and test environments are established, the ERO should consider this matter in the Reliability Standards development process. However, the Commission cautions that certain changes to a production or test environment might make the differences between the two greater and directs the ERO to take

this into account when developing guidance on when to require updated documentation to ensure that there are no significant gaps between what is tested and what is in production."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10553 - The Commission adopts, with clarification, the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to incorporate use of good forensic data collection practices and procedures into this CIP Reliability Standard.

Para 706

"The Commission adopts, with clarification, the CIP NOPR proposal to direct the ERO to modify CIP-009-1 to incorporate use of good forensic data collection practices and procedures into this CIP Reliability Standard."

Assigned: Project 2008-06 - Cyber Security - Order 706

TBD

Status: *In Drafting* Delivery: 2012

Solution Details:

TBD

DIRECTIVE: S- Ref 10821 - The Commission continues to believe that, in general, logs should be reviewed at least weekly and therefore adopts the CIP NOPR proposal to require the ERO to modify CIP-007-1 to require logs to be reviewed more frequently than 90 days, but leaves it to

Para 628

"The Commission continues to believe that, in general, logs should be reviewed at least weekly and therefore adopts the CIP NOPR proposal to require the ERO to modify CIP-007-1 to require logs to be reviewed more frequently than 90 days, but leaves it to the Reliability Standards development process to determine the appropriate frequency, given our clarification below, similar to our action with respect to CIP-005-1"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10830 - The Commission further directs the ERO to include language in CIP-008-1 to require revisions to the incident response plan to address these lessons learned.

Para 686

"The Commission further directs the ERO to include language in CIP-008-1 to require revisions to the incident response plan to address these lessons learned."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10823 - The Commission adopts the CIP NOPR proposal to direct the ERO to clarify what it means to prevent unauthorized retrieval of data from a cyber asset prior to discarding it or redeploying it.

Para 633

"The Commission adopts the CIP NOPR proposal to direct the ERO to clarify what it means to prevent unauthorized retrieval of data from a cyber asset prior to discarding it or redeploying it."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10824 - The Commission directs the ERO to revise Requirement R7 of CIP-007-1 to clarify, consistent with this discussion, what it means to prevent unauthorized retrieval of data.

Para 635

"the Commission directs the ERO to revise Requirement R7 of CIP-007-1 to clarify, consistent with this discussion, what it means to prevent unauthorized retrieval of data."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10536 - The Commission directs the ERO to provide more direction on what features, functionality, and vulnerabilities the responsible entities should address when conducting the vulnerability assessments.

Para 643

"The Commission adopts its proposal to direct the ERO to provide more direction on what features, functionality, and vulnerabilities the responsible entities should address when conducting the vulnerability assessments, and to revise Requirement R8.4 to require an entity-imposed timeline for completion of the already-required action plan."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10825 - The Commission adopts the CIP NOPR proposal to direct the ERO to provide guidance regarding what should be included in the term reportable incident. we direct the ERO to develop and provide guidance on the term reportable incident.

Para 660

"The Commission adopts the CIP NOPR proposal to direct the ERO to provide guidance regarding what should be included in the term reportable incident. we direct the ERO to develop and provide guidance on the term reportable incident."

Assigned: Project 2008-06 - Cyber Security - Order 706

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: *In Drafting*

Solution Details:

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: *In Drafting* Delivery: 2012

Solution Details:

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

DIRECTIVE: S- Ref 10826 - The Commission directs the ERO to develop a modification to CIP-008-1 to: (1) include language that takes into account a breach that may occur through cyber or physical means; (2) harmonize, but not necessarily limit, the meaning of the term reportable

Para 661

"the Commission directs the ERO to develop a modification to CIP-008-1 to: (1) include language that takes into account a breach that may occur through cyber or physical means; (2) harmonize, but not necessarily limit, the meaning of the term reportable incident with other reporting

mechanisms, such as DOE Form OE 417; (3) recognize that the term should not be triggered by ineffectual and untargeted attacks that proliferate on the internet; and (4) ensure that the guidance language that is developed results in a Reliability Standard that can be audited and enforced"

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10827 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1 to require each responsible entity to contact appropriate government authorities and industry participants in the event of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report.

Para 673

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1 to require each responsible entity to contact appropriate government authorities and industry participants in the event of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report. As stated in the CIP NOPR, the reporting timeframe should run from the discovery of the incident by the responsible entity, and not the occurrence of the incident."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10828 - The Commission directs the ERO to modify CIP-008-1 to require a responsible entity to, at a minimum, notify the ESISAC and appropriate government authorities of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report.

Para 676

"the Commission directs the ERO to modify CIP-008-1 to require a responsible entity to, at a minimum, notify the ESISAC and appropriate government authorities of a cyber security incident as soon as possible, but, in any event, within one hour of the event, even if it is a preliminary report."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10829 - The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1, Requirement R2 to require responsible entities to maintain documentation of paper drills, full operational drills, and responses to actual incidents, all of which must include lessons learned.

Para 686

"The Commission adopts the CIP NOPR proposal to direct the ERO to modify CIP-008-1, Requirement R2 to require responsible entities to maintain documentation of paper drills, full operational drills, and responses to actual incidents, all of which must include lessons learned."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: *In Drafting* Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10793 - The Commission directs the ERO to consult with federal entities that are required to comply with both CIP Reliability Standards and NIST standards on the effectiveness of the NIST standards and on implementation issues and report these findings to the Commission.

Para 233 (Related paragraph: 25)

"Para 233

The Commission continues to believe and is further persuaded by the comments that NERC should monitor the development and implementation of the NIST standards to determine if they contain provisions that will protect the Bulk-Power System better than the CIP Reliability Standards. Moreover, we direct the ERO to consult with federal entities that are required to comply with both CIP Reliability Standards and NIST standards on the effectiveness of the NIST standards and on implementation issues and report these findings to the Commission. Consistent with the CIP NOPR, any provisions that will better protect the Bulk-Power System should be addressed in NERCs Reliability Standards development process. The Commission may revisit this issue in future proceedings as part of an evaluation of existing Reliability Standards or the need for new CIP Reliability Standards, or as part of an assessment of NERCs performance of its responsibilities as the ERO.

Para 25

The Commission believes that the NIST standards may provide valuable guidance when NERC develops future iterations of the CIP Reliability Standards. Thus, as discussed below, we direct NERC to address revisions to the CIP Reliability Standards CIP-002-1 through CIP-009-1 considering applicable features of the NIST framework. However, in response to Applied Control Solutions, we will not delay the effectiveness of the CIP Reliability Standards by directing the replacement of the current CIP Reliability Standards with others based on the NIST framework.

Not assigned to any project.

DIRECTIVE: S- Ref 10798 - The Commission adopts its CIP NOPR proposal and directs the ERO to develop modifications to Reliability Standards CIP-003-1, CIP-004-1, and/or CIP-007-1, to ensure and make clear that, when access to protected information is revoked, it is done so promptly.

Due 6/29/2012

Para 386

"The Commission adopts its CIP NOPR proposal and directs the ERO to develop modifications to Reliability Standards CIP-003-1, CIP-004-1, and/or CIP-007-1, to ensure and make clear that, when access to protected information is revoked, it is done so promptly."

Assigned: Project 2008-06 - Cyber Security - Order 706

Version 5 filing

Status: In Drafting Delivery: 2012

Solution Details:

Version 5 is to address all of the outstanding issues in FERC Order 706

DIRECTIVE: S- Ref 10849 - The ERO should consider the suggestion that the CIP Reliability Standards require oversight by a corporate officer (or the equivalent, since some entities do not have corporate officers) rather than by a senior manager.

Para 296 (Related paragraphs: 289 thru 293)

"With regard to METC-ITCs comment, the ERO should consider in its Reliability Standards development process the suggestion that the CIP Reliability Standards require oversight by a corporate officer (or the equivalent, since some entities do not have corporate officers) rather than by a senior manager."

Not assigned to any project.

DIRECTIVE: S- Ref 10851 - The Commission directs the ERO to revise Requirement R8.4 to require an entity-imposed timeline for completion of the already-required action plan.

Para 643

"The Commission adopts its proposal to direct the ERO to provide more direction on what features, functionality, and vulnerabilities the responsible entities should address when conducting the vulnerability assessments, and to revise Requirement R8.4 to require an entity-imposed timeline for completion of the already-required action plan."

Not assigned to any project.

DIRECTIVE: S- Ref 10852 - The ERO should consider Northern Indianas and Xcels concerns regarding the phrase single access point at the dial up device.

Para 504 (Related paragraph: 495)

"Para 504

The ERO should consider in the Reliability Standards development process Northern Indianas and Xcels concerns regarding the phrase single access point at the dial up device.

Para 495

Northern Indiana and Xcel ask the Commission to clarify or direct the ERO to clarify the phrase single access point at the dial up device in CIP-005-1, Requirement R1.2. Xcel asks whether this refers to the initiating device, the device at the point of termination, or both. Northern Indiana would not modify CIP-005-1, but urges that any modifications to Requirement R2 should allow continued reliance on legacy systems.

"

Not assigned to any project.

DIRECTIVE: S- Ref 10854 - The Commission directs the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means, consistent with our discussion above.

Para 622 Sen 2 (Related paragraphs: 614 and 619)

"Para 622

Therefore, the Commission directs the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere. The Commission also directs the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means, consistent with our discussion above.

Para 614

The Commission proposed to direct the ERO to eliminate the acceptance of risk language from Requirement R4.2, and also attach the same documentation and reporting requirements to the use of technical feasibility in Requirement R4, pertaining to malicious software prevention, as elsewhere. The Commission discussed the issues of defense in depth, technical feasibility, and risk acceptance elsewhere in the CIP NOPR and applied those conclusions here. The Commission further proposed to direct the ERO to modify Requirement R4 to include safeguards against personnel introducing, either maliciously or unintentionally, viruses or malicious software to a cyber asset within the electronic security perimeter through remote access, electronic media, or other means.

Para 619

The Commission adopts the CIP NOPR proposal with regard to CIP-007-1, Requirement R4. Issues concerning technical feasibility and acceptance of risk are discussed above.

"

Not assigned to any project.

DIRECTIVE: S- Ref 10855 - The ERO should clarify that CIP-008-1 should require a responsible entity to verify the list of entities that must be called pursuant to its cyber security incident response plan and that the contact numbers at those agencies are correct. The ERO may use a term different than full operational exercise when doing so.

Para 687

"In light of the comments received, the Commission clarifies that, with respect to full operational testing under CIP-008-1, such testing need not require a responsible entity to remove any systems from service. The Commission understands that use of the term full operational exercise in this context can be confusing. We interpret the priority of the testing required by this provision to be that planned response actions are exercised in reference to a presumed or hypothetical incident contemplated by the cyber security response plan, and not necessarily that the presumed incident is performed on the live system. A responsible entity should assume a certain type of incident had occurred, and then ensure that its employees take what action would be required under the response plan, given the hypothetical incident. A responsible entity must ensure that it is properly identifying potential incidents as physical or cyber and contacting the appropriate government, law enforcement or industry authorities. CIP-008-1 should require a responsible entity to verify the list of entities that must be called pursuant to its cyber security incident response plan and that the contact numbers at those agencies are correct. The ERO should clarify this in the revised Reliability Standard and may use a term different than full operational exercise. (Footnote 164: Because the use of the term full operational exercise in CIP-009-1 appears to have different implications for the testing environment, we encourage the development of a different term here in CIP-008-1.)"

Not assigned to any project.

Project 2008-12 Coordinate Interchange Standards

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10139 - Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process.

Para 872

"Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Will be addressed. Current drafting team to complete

DIRECTIVE: S- Ref 10134 - Consider adding levels of non-compliance to the standard.

Para 843

"Consider adding levels of non-compliance to the standard."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Compliance elements have been added. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Compliance elements have been added. Current drafting team to complete

DIRECTIVE: S- Ref 10135 - Consider adding levels of non-compliance to the standard.

Para 848

"Consider adding levels of non-compliance to the standard."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Standard to be retired. Current drafting team to complete

Status: *In Drafting* Delivery: 2014

Solution Details:

Standard to be retired. Current drafting team to complete

DIRECTIVE: S- Ref 10141 - Consider Northern Indianas and ISO-NEs suggestions in the standards development process.

Para 887

"Para 887

Accordingly, the Commission approves Reliability Standard INT-010-1 as mandatory and enforceable. In addition, we adopt the interpretation set forth in the NOPR that these current or imminent reliability-related reasons do not include actual IROL violations, since they require immediate control actions so that the system can be returned to a secure operating state as soon as possible and no longer than 30 minutes after a reliability-related system interruption a period that is much shorter than the time that is expected to be required for new or modified transactions to be implemented. Finally, we direct the ERO to consider Northern Indiana and ISO-NEs suggestions in the Reliability Standards development process.

Para 879 and 880

Northern Indiana supports the Commissions interpretation of INT-010-1, but it requests that the Reliability Standard be modified to explicitly state that it does not include actual IROL violations.

ISO-NE supports Commission approval of INT-010-1, but does not share the Commissions concerns regarding the initiation or modification of interchange schedules to address SOL or IROL violations. It states that interchange schedules can in certain circumstances provide an

additional effective tool to help prevent an SOL and IROL violation. While ISO-NE recognizes that other tools may in certain circumstances be more effective, it states that this neither diminishes the value nor precludes the use of the tools contained in INT-010-1. ISO-NE also notes that section 2.4 of INT-010-1, which describes Level 4 Non-Compliance, should be edited to state that [t]here shall be a level four non-compliance. . . instead of [t]here shall be a level three non-compliance. . . .

"

Assigned: Project 2008-12 - Coordinate Interchange Standards

Language has been modified to make it clear these exemptions are for schedule changes which are then followed up by tagging changes. As such, this is an appropriate tool for IROLs, as it does not require tagging before schedule changes are made. Current

Status: In Drafting Delivery: 2014

Solution Details:

Language has been modified to make it clear these exemptions are for schedule changes which are then followed up by tagging changes. As such, this is an appropriate tool for IROLs, as it does not require tagging before schedule changes are made. Current drafting team to complete

DIRECTIVE: S- Ref 10140 - Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process.

Para 875

"Consider APPAs suggestion to clarify what reliability entity the standard applies as part of the standard development process."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed. Current drafting team to complete

DIRECTIVE: S- Ref 10138 - Consider the suggestions made by EEI and TVA and address questions raised by Entergy and Northern Indiana as part of the standard development process. EEI states that the wide-area reliability impact review envisioned by the Commission, w

Para 866

"Consider the suggestions made by EEI and TVA and address questions raised by Entergy and Northern Indiana as part of the standard development process.

EEI states that the wide-area reliability impact review envisioned by the Commission, which involves review of the composite energy interchange transactions, probably already takes place under Reliability Standards INT-005 through INT-009 in a cost-effective manner. EEI explains that since most transactions submitted by wholesale

markets to the transactions tagging process span multiple hours with varying sizes (in MW), and are often submitted days before transaction start times, the wide-area review consists of ensuring that sufficient generator ramping capability exists, as well as examining for limits on transfer capabilities. This review is generally considered sufficient to the extent that analyses are taking place on the basis of projected system conditions. EEI suggests that the Commission-proposed review and validation of composite energy interchange transactions by reliability coordinators might be more effectively addressed through near real-time system review. It explains that, at this time, the broad range of system condition parameters is better known, and the reliability coordinators can make use of the TLR process to maintain system reliability.

TVA suggests that the term composite Tag should be defined as part of the proposed modifications. CAISO also questions the meaning of composite Tag and

seeks clarification on that issue. TVA notes that depending on the type of reliability analysis required to validate a composite Tag, it may prove impractical to conduct this evaluation for hourly transactions.

Entergy disagrees with the Commissions proposed modifications. It contends that they will require substantial changes to the tagging specifications. Entergy believes that the Commissions concerns may already be addressed by Reliability Standards INT- 005 through INT-009.

Northern Indiana contends that the NOPRs discussion of INT-006-1 is unclear and confusing. It states that it does not understand what the Commission means by validate when the Commission proposes that reliability coordinators and transmission operators review and validate composite arranged interchanges. Northern Indiana also questions whether both reliability coordinators and transmission operators would be required to validate and approve the Tags and what the basis for approval would be. It questions what falls within the term potential detrimental reliability impact, what happens if a Tag is not validated within 20 minutes to the hour, and whether all schedules are canceled outright or passively approved."

Assigned: Project 2008-12 - Coordinate Interchange Standards

EI - Will be addressed in IRO and TOP standards; SAR being developed. TVA - The team defined the term composite confirmed interchange Entergy - The changes as written by the team will not require significant tagging rewrites, as no new approval process

Status: In Drafting Delivery: 2014

Solution Details:

EI - Will be addressed in IRO and TOP standards; SAR being developed.

TVA - The team defined the term composite confirmed interchange

Entergy - The changes as written by the team will not require significant tagging rewrites, as no new approval process is being required.

Northern Indiana - Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

DIRECTIVE: S- Ref 10137 - Require reliability coordinators and transmission operators to review energy interchange transactions from the wide-area and local area reliability viewpoints respectively and, where their review indicates a potential detrimental reliability

Para 866

"Require reliability coordinators and transmission operators to review energy interchange transactions from the wide-area and local area reliability viewpoints respectively and, where their review indicates a potential detrimental reliability impact, communicate to the sink balancing authorities necessary transaction modifications before implementation."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

DIRECTIVE: S- Ref 10136 - Include reliability coordinators and transmission operators as applicable entities.

Para 866

"Include reliability coordinators and transmission operators as applicable entities."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Will be addressed in IRO and TOP standards; SAR being developed. Current drafting team to complete

DIRECTIVE: S- Ref 10133 - Consider Santa Claras comments about the applicability of the LSE in the standard as part of the standards development process. Santa Clara submits that LSEs should be applicable entities under proposed revised INT-001-2 to ensure that the

Para 819

"Consider Santa Claras comments about the applicability of the LSE in the standard as part of the standards development process. Santa Clara submits that LSEs should be applicable entities under proposed revised INT-001-2 to ensure that they have adequate notice of the requirements of this Reliability Standard. It states that the actions of LSEs are implicated in Requirement R1 of this proposed Reliability Standard."

Assigned: Project 2008-12 - Coordinate Interchange Standards

The SDT has considered these comments. By tightening the language in INT-009 regarding implementation of interchange, the SDT believes that an LSE will have an incentive to provide the information required in the standard, making it effectively a self-po

Status: In Drafting Delivery: 2014

Solution Details:

The SDT has considered these comments. By tightening the language in INT-009 regarding implementation of interchange, the SDT believes that an LSE will have an incentive to provide the information required in the standard, making it effectively a self-policing standard. Current drafting team to complete

DIRECTIVE: S- Ref 10132 - Include a requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area, including all grandfathered and non-Order No. 888 transfers.

Para 817

"Include a requirement that interchange information must be submitted for all point-to-point transfers entirely within a balancing authority area, including all grandfathered and non-Order No. 888 transfers."

Assigned: Project 2008-12 - Coordinate Interchange Standards

Being addressed in INT-012 Current drafting team to complete

Status: In Drafting Delivery: 2014

Solution Details:

Being addressed in INT-012 Current drafting team to complete

Project 2009-01 Disturbance and Sabotage Reporting

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10079 - Para 617 - the Commission directs the ERO to develop a modification to EOP-004-1 through the Reliability Standards development process that includes any Requirements necessary for users, owners and operators of the Bulk-Power System to

Para 617

"617.While the Commission has identified concerns with regard to EOP-004-1, we believe that the proposal serves an important purpose in establishing requirements for reporting and analysis of system disturbances. Accordingly, the Commission approves Reliability Standard EOP-004-1 as mandatory and enforceable. In addition, pursuant to section 215(d)(5) of the FPA and 39.5(f) of our regulations, the Commission directs the ERO to develop a modification to EOP-004-1 through the Reliability Standards development process that includes any Requirements necessary for users, owners and operators of the Bulk-Power System to provide data that will assist NERC in the investigation of a blackout or disturbance."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

EOP-004-2 is the standard for reporting events.

Status: In Drafting Delivery: 2012

Solution Details:

EOP-004-2 is the standard for reporting events. This provides input to the Events Analysis Program at NERC. Follow up and lessons learned are a part of the EAP.

DIRECTIVE: S- Ref 10078 - The ERO should consider this issue (APPA) through the Reliability Standards development process

Para 616

"The ERO should consider this issue (APPA) through the Reliability Standards development process"

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

The actual issue is: 616. In response to APPAs concern that...

Status: In Drafting Delivery: 2012

Solution Details:

The actual issue is: 616. In response to APPAs concern that NERC did not provide a Measure for each Requirement, we reiterate that it is in the EROs discretion whether each Requirement requires a corresponding Measure. The ERO should consider this issue through the Reliability Standards development process. There are measures for each requirement

DIRECTIVE: S- Ref 10077 - The Commission directs the ERO to consider all comments (Xcel) in future modifications of the Reliability Standard through the Reliability Standards development process.

Para 615

"The Commission directs the ERO to consider all comments (Xcel) in future modifications of the Reliability Standard through the Reliability Standards development process."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

This issue is: 615. The Commission declines to address Xcels concerns about the current WECC process.

Status: In Drafting Delivery: 2012

Solution Details:

This issue is: 615. The Commission declines to address Xcels concerns about the current WECC process. These issues should be addressed in the Reliability Standards development process or submitted as a regional difference. The Commission directs the ERO to consider all comments in future modifications of the Reliability Standard through the Reliability Standards development process. The DSR SDT has considered and responded to all comments received on the standard through the standard development process.

DIRECTIVE: S- Ref 10046 - Modify CIP-001-1 to require an applicable entity to contact appropriate governmental authorities in the event of sabotage within a specific period of time, even if it is a preliminary report.

Para 470

"Modify CIP-001-1 to require an applicable entity to contact appropriate governmental authorities in the event of sabotage within a specific period of time, even if it is a preliminary report."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies and Attachment 1 specifies the timeframe required for reporting.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies and Attachment 1 specifies the timeframe required for reporting. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

DIRECTIVE: S- Ref 10076 - Consider APPAs concern about generator operators and LSEs analyzing performance of their equipment and provide data and information on the equipment to assist others with analysis. Paragraph 607. APPA is concerned about the scope of Requir

Para 612

"Consider APPAs concern about generator operators and LSEs analyzing performance of their equipment and provide data and information on the equipment to assist others with analysis. Paragraph 607. APPA is concerned about the scope of Requirement R2 because, in its opinion, Requirement R2 appears to impose an open-ended obligation on entities such as generation operators and LSEs that may have neither the data nor the tools to promptly analyze disturbances that could have originated elsewhere. APPA proposes that Requirement R2 be modified to require affected entities to promptly begin analyses to ensure timely reporting to NERC and DOE."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

EOP-004-2 no longer contains provisions for entities to analyze events.

Status: In Drafting Delivery: 2012

Solution Details:

EOP-004-2 no longer contains provisions for entities to analyze events. The DSR SDT envisions EOP-004-2 to be a continent-wide reporting standard. Any follow up investigation or analysis falls under the purview of the NERC Events Analysis Program under the NERC Rules of Procedure.

DIRECTIVE: S- Ref 10075 - Paragraph 618. requirement R3 addresses the reporting of disturbances to the regional reliability organizations and NERC. The Commission directs the ERO to change its Rules of Procedure to assure that the Commission also receives these repo

Para 618

"Paragraph 618. requirement R3 addresses the reporting of disturbances to the regional reliability organizations and NERC. The Commission directs the ERO to change its Rules of Procedure to assure that the Commission also receives these reports within the same time frames as DOE."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other

designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

DIRECTIVE: S- Ref 10044 - We direct the ERO to explore ways to address these concerns including central coordination of sabotage reports and a uniform reporting format in developing modifications to the Reliability Standard with the appropriate governmental agency

Para 469

"We direct the ERO to explore ways to address these concerns including central coordination of sabotage reports and a uniform reporting format in developing modifications to the Reliability Standard with the appropriate governmental agencies that have levied the reporting requirements."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

DIRECTIVE: S- Ref 10043 - Include a requirement to report a sabotage event to the proper government authorities. Develop the language to specifically implement this directive. Paragraph 467. CIP-001-1, Requirement R4, requires that each applicable entity establish

Para 468

"Include a requirement to report a sabotage event to the proper government authorities. Develop the language to specifically implement this directive. Paragraph 467. CIP-001-1, Requirement R4, requires that each applicable entity establish communications contacts, as applicable, with the local FBI or Royal Canadian Mounted Police officials and develop reporting procedures as appropriate to its circumstances. The Commission in the NOPR expressed concern that the Reliability Standard does not require an applicable entity to actually contact the appropriate governmental or regulatory body in the event of sabotage. Therefore, the Commission proposed that NERC modify the Reliability Standard to require an applicable entity to contact appropriate federal authorities, such as the Department of Homeland Security, in the event of sabotage within a specified period of time.212 468. As mentioned above, NERC and others object to the wording of the proposed directive as overly prescriptive and note that the reference to appropriate federal authorities fails to recognize the international application of the Reliability Standard.

The example of the Department of Homeland Security as an appropriate federal authority was not intended to be an exclusive designation. Nonetheless, the Commission agrees that a reference to federal authorities could create confusion. Accordingly, we modify the direction in the NOPR and now direct the ERO to address our underlying concern regarding mandatory reporting of a sabotage event. The EROs Reliability Standards development process should develop the language to implement this directive."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies.

Status: In Drafting Delivery: 2012

Solution Details:

Per Requirement R1, the entity is to develop procedure(s) that include event reporting to law enforcement and governmental agencies. The DSR SDT also proposes revisions to the NERC Rules of Procedure to report events to the FERC.

812. NERC will establish a system to collect report forms as established for this section or standard, from any Registered Entities, pertaining to data requirements identified in Section 800 of this Procedure. Upon receipt of the submitted report, the system shall then forward the report to the appropriate NERC departments, applicable regional entities, other designated registered entities, and to appropriate governmental, law enforcement, regulatory agencies as necessary. This can include state, federal, and provincial organizations.

Also see Background section of Standard. A proposal discussed with FBI, FERC Staff, NERC Standards Project Coordinator and SDT Chair is reflected in the flowchart below (Reporting Hierarchy for Event EOP-004-2). Essentially, reporting an event to law enforcement agencies will only require the industry to notify the state or provincial level law enforcement agency. The state or provincial level law enforcement agency will coordinate with local law enforcement to investigate. If the state or provincial level law enforcement agency decides federal agency law enforcement or the RCMP should respond and investigate, the state or provincial level law enforcement agency will notify and coordinate with the FBI or the RCMP.

DIRECTIVE: S- Ref 10042 - The Commission affirms the NOPR directive and directs the ERO to incorporate a periodic review or updating of the sabotage reporting procedures and for the periodic testing of the sabotage reporting procedures. At this time, the Commission

Para 466

"The Commission affirms the NOPR directive and directs the ERO to incorporate a periodic review or updating of the sabotage reporting procedures and for the periodic testing of the sabotage reporting procedures. At this time, the Commission does not specify a review period as suggested by FirstEnergy and MRO and, rather, believes that the appropriate period should be determined through the EROs Reliability Standards development process. However, the Commission directs that the ERO begin this process by considering a staggered schedule of annual testing of the procedures with modifications made when warranted formal review of the procedures every two or three years."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

The standard is responsive this directive with the following language in Requirement R1:

Status: In Drafting Delivery: 2012

Solution Details:

The standard is responsive this directive with the following language in Requirement R1:

1.3 Provisions for an annual test of the communications process in Part 1.2 and an annual review of the Operating Plan.

The DSR SDT envisions that this will include verification that contact information contained in the Operating Plan is correct. As an example, the annual update of the Operating Plan could include calling others as defined in the Responsibility Entity's Operating Plan (see Part 1.2) to verify that their contact information is correct and current. If any discrepancies are noted, the Operating Plan would be updated.

DIRECTIVE: S- Ref 10041 - Consider FirstEnergy's suggestions to differentiate between cyber and physical security sabotage and develop a threshold of materiality. Paragraph 451. A number of commenters agree with the Commissions concern that the term sabotage needs to

Para 462

"Consider FirstEnergy's suggestions to differentiate between cyber and physical security sabotage and develop a threshold of materiality. Paragraph 451. A number of commenters agree with the Commissions concern that the term sabotage needs to be better defined and guidance provided on the triggering events that would cause an entity to report an event. FirstEnergy states that this definition should differentiate between cyber and physical sabotage and should exclude unintentional operator error. It advocates a threshold of materiality to exclude acts that do not threaten to reduce the ability to provide service or compromise safety and security. SoCal Edison states that clarification regarding the meaning of sabotage and the triggering event for reporting would be helpful and prevent over-reporting."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

This is addressed in Attachment 1.

Status: In Drafting Delivery: 2012

Solution Details:

This is addressed in Attachment 1. There are specific event types for both cyber and physical security with their respective report submittal requirements.

DIRECTIVE: S- Ref 10040 - Define sabotage and provide guidance on triggering events that would cause an entity to report an event. Paragraph 461. Several commenters agree with the Commissions concern that the term sabotage should be defined. For the reasons stated

Para 461

"Define sabotage and provide guidance on triggering events that would cause an entity to report an event. Paragraph 461. Several commenters agree with the Commissions concern that the term sabotage should be defined. For the reasons stated in the NOPR, we direct that the ERO further define the term and provide guidance on triggering events that would cause an entity to report an event. However, we disagree with those commenters that suggest the term sabotage is so vague as to justify a delay in approval or the application of monetary penalties. As explained in the NOPR, we believe that the term sabotage is commonly understood and that common understanding should suffice in most instances"

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

The DSR SDT has not proposed a definition for inclusion in the NERC Glossary because it is impractical to define every event that should be reported without listing them in the definition.

Status: In Drafting Delivery: 2012

Solution Details:

The DSR SDT has not proposed a definition for inclusion in the NERC Glossary because it is impractical to define every event that should be reported without listing them in the definition. Attachment 1 is the de facto definition of event. The DSR SDT considered the FERC directive to further define sabotage and decided to eliminate the term sabotage from the standard. The team felt that without the intervention of law enforcement after the fact, it was almost impossible to determine if an act or event was that of sabotage or merely vandalism. The term sabotage is no longer included in the standard and therefore it is inappropriate to attempt to define it. The events listed in Attachment 1 provide guidance for reporting both actual events as well as events which may have an impact on the Bulk Electric System. The DSR SDT believes that this is an equally effective and efficient means of addressing the FERC Directive.

DIRECTIVE: S- Ref 10039 - Consider the need for wider application of the standard. Consider whether separate, less burdensome requirements for smaller entities may be appropriate. Paragraph 458. The Commission acknowledges the concerns of the commenters about the

Para 460

"Consider the need for wider application of the standard. Consider whether separate, less burdensome requirements for smaller entities may be appropriate. Paragraph 458. The Commission acknowledges the concerns of the commenters about the applicability of CIP-001-1 to small entities and has addressed the concerns of small entities generally earlier in this Final Rule. Our approval of the ERO Compliance Registry criteria to determine which users, owners and operators are responsible for compliance addresses the concerns of APPA and others. 459. However, the Commission believes that there are specific reasons for applying this Reliability Standard to such entities, as discussed in the NOPR. APPA indicates that some small LSEs do not own or operate hard assets that are normally thought of as at risk to sabotage. The Commission is concerned that, an adversary might determine that a small LSE is the appropriate target when the adversary aims at a particular population or facility. Or an adversary may target a small user, owner or operator because it may have similar equipment or protections as a larger facility, that is, the adversary may use an attack against a smaller facility as a training exercise. The knowledge of sabotage events that occur at any facility (including small facilities) may be helpful to those facilities that are traditionally considered to be the primary targets of adversaries as well as to all members of the electric sector, the law enforcement community and other critical infrastructures. 460. For these reasons, the Commission remains concerned that a wider application of CIP-001-1 may be appropriate for Bulk-Power System reliability. Balancing these concerns with our earlier discussion of the applicability of Reliability Standards to smaller entities, we will not direct the ERO to make any specific modification to CIP-001-1 to address applicability. However, we direct the ERO, as part of its Work Plan, to consider in the Reliability Standards development process, possible revisions to CIP-001-1 that address our concerns regarding the need for wider application of the Reliability Standard. Further, when addressing such applicability issues, the ERO should consider whether separate, less burdensome requirements for smaller entities may be appropriate to address these concerns."

Assigned: Project 2009-01 - Disturbance and Sabotage Reporting

Attachment 1 defines the timelines and events which are to be reported under this standard.

Status: In Drafting Delivery: 2012

Solution Details:

Attachment 1 defines the timelines and events which are to be reported under this standard. The applicable entities are also identified for each type of event.

Project 2009-02 Real Time Reliability Monitoring and Analysis Capabilities

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10145 - Require a minimum set of tools for the RC

Para 905

"Further, consistent with the NOPR, the Commission directs the ERO to modify IRO-002-1 to require a minimum set of tools that must be made available to the reliability coordinator. We believe that this requirement will ensure that a reliability coordinator has the tools it needs to perform its functions. Further, as noted by Dominion, such a requirement promotes a more proactive approach to maintaining reliability."

Assigned: Project 2009-02 - Real Time Reliability Monitoring and Analysis Capabilities

DIRECTIVE: S- Ref 10387 - 1653 - Add requirement related to the provision of minimum capabilities that are necessary to enable operators to deal with real-time situations and to ensure reliable operation of the bulk power system.

Para 1660

"1653 - Add requirement related to the provision of minimum capabilities that are necessary to enable operators to deal with real-time situations and to ensure reliable operation of the bulk power system."

Assigned: Project 2009-02 - Real Time Reliability Monitoring and Analysis Capabilities

The RTOSDT has passed this on to Project 2009-02 through the submittal of an official comment to the published SAR.

Status: In Ballot Delivery: 2013

Solution Details:

The RTOSDT has passed this on to Project 2009-02 (Real-time Reliability Monitoring and Analysis Capabilities) through the submittal of an official comment to the published SAR. Requirement for phase angle information is covered by proposed TOP-003-2

Project 2009-03 Emergency Operations

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10073 - Require periodic drills of simulated load shedding.

Para 597

"Require periodic drills of simulated load shedding."

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10072 - Develop specific minimum load shedding capability that should be provided .. based on overarching nationwide criteria that take into account system characteristics.

Para 595

"Develop specific minimum load shedding capability that should be provided .. based on overarching nationwide criteria that take into account system characteristics."

Assigned: Project 2009-03 - Emergency Operations

DIRECTIVE: S- Ref 10074 - Consider comments from APPA in the standards development process.

Para 601

"Para 601

We also note that APPA and ISO-NE raise issues regarding coordination of trip settings and automatic and manual load shedding plans. The Commission directs the ERO to consider these comments in future modification to the Reliability Standard through the Reliability Standards development process.

Para 598

Santa Clara states that since automatic load shedding for undervoltage conditions is not required in most parts of the West and possibly in other areas of the country, Requirement R2 should be modified to include the words as applicable per the Regional Reliability Organization. In addition, APPA states that NERC should consider requiring balancing authorities and transmission operators to expand coordination and planning of their automatic and manual load shedding plans to include their respective Regional Entities, reliability coordinators and generation owners. ISO-NE proposes that NERC establish coordinated trip settings within and among balancing authorities for each interconnection.

"

Assigned: Project 2009-03 - Emergency Operations

TBD

Status: In Drafting Delivery: 2013

Solution Details:

TBD

DIRECTIVE: S- Ref 10063 - We direct the ERO to determine the optimum number of continent-wide system states and their attributes and to modify the Reliability Standards through the Reliability Standards development process to accomplish this objective.

Para 561

"We direct the ERO to determine the optimum number of continent-wide system states and their attributes and to modify the Reliability Standards through the Reliability Standards development process to accomplish this objective."

Assigned: Project 2009-03 - Emergency Operations

Future project
Status: *In Drafting* Delivery: 2013
Solution Details:
Future project

DIRECTIVE: S- Ref 10067 - Include all technically feasible resource options, including demand response and generation resources

Para 573

"Include all technically feasible resource options, including demand response and generation resources"

Assigned: Project 2009-03 - Emergency Operations

TBD
Status: *In Drafting* Delivery: 2013
Solution Details:
TBD

DIRECTIVE: S- Ref 10066 - Address emergencies resulting not only from insufficient generation but also insufficient transmission capability, particularly as it affects the implement of the capacity and energy emergency plan.

Para 571

"Address emergencies resulting not only from insufficient generation but also insufficient transmission capability, particularly as it affects the implement of the capacity and energy emergency plan."

Assigned: Project 2009-03 - Emergency Operations

TBD
Status: *In Drafting* Delivery: 2013
Solution Details:
TBD

DIRECTIVE: S- Ref 10065 - Clarifies that the actual emergency plan elements, and not the for consideration elements of Attachment 1, should be the basis for compliance.

Para 565

"Clarifies that the actual emergency plan elements, and not the for consideration elements of Attachment 1, should be the basis for compliance."

Assigned: Project 2009-03 - Emergency Operations

TBD
Status: *In Drafting* Delivery: 2013
Solution Details:
TBD

DIRECTIVE: S- Ref 10064 - Consider a pilot program (field test) for the system states proposal.

Para 562

"Consider a pilot program (field test) for the system states proposal."

Assigned: Project 2009-03 - Emergency Operations

Future project
Status: *In Drafting* Delivery: 2013
Solution Details:
Future project

Project 2009-07 Reliability of Protection Systems

Final Rule on Version One Regional Reliability Standards for Facilities Design, Connections, and Maintenance; Protection and Control; and Voltage and Reactive (Order 751)

DIRECTIVE: S- Ref 10787 - The Commission encourages NERC to consider the comments of PacifiCorp regarding the development of a continent-wide definition of Functionally Equivalent Protection System and Functionally Equivalent Remedial Action Scheme during the development of Project 2009-07.

Para 50 and 47

"Para 50 We will not direct NERC to consider PacifiCorps suggestion that the Commission direct NERC to consider the development of a continent-wide definition of functionally equivalent protection system and functionally equivalent remedial action scheme. We note that NERC has an ongoing project that could address this issue. We encourage NERC to consider the comments of PacifiCorp in this proceeding during the development of Project 2009-07 and encourage PacifiCorp to participate in this NERC project.

Para 47 Bonneville and PacifiCorp generally agree that the terms Functionally Equivalent Protection System and Functionally Equivalent Remedial Action Scheme are useful because they describe a protection system or remedial action scheme that is able to provide the necessary functionality of a protection system or remedial action scheme without the loss of any necessary dependability for the system. PacifiCorp further suggests that the Commission direct NERC to consider the development of a continent-wide definition of Functionally Equivalent Protection System and Functionally Equivalent Remedial Action Scheme.

"

Assigned: Project 2009-07 - Reliability of Protection Systems

Pending

Status: Pending Delivery: 2015

Solution Details:

Pending

Project 2010-01 Support Personnel Training

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10329 - Training programs for operations planning and operations support staff must be tailored to the needs of the function, the tasks performed and personnel involved.

Para 1375

"Training programs for operations planning and operations support staff must be tailored to the needs of the function, the tasks performed and personnel involved."

Assigned: Project 2010-01 - Support Personnel Training

This will be included in Project 2010-01, issue needs to be resolved.

Status: *In Drafting* Delivery: 2014

Solution Details:

This will be included in Project 2010-01, issue needs to be resolved. Considered - address in next phase.

DIRECTIVE: S- Ref 10327 - Consider whether personnel that support EMS applications should be included in the mandatory training requirements.

Due 8/23/2012

Para 1373

"Consider whether personnel that support EMS applications should be included in the mandatory training requirements."

Assigned: Project 2010-01 - Support Personnel Training

This will be included in Project 2010-01, issue needs to be resolved.

Status: *In Drafting* Delivery: 2014

Solution Details:

This will be included in Project 2010-01, issue needs to be resolved. Considered - address in next phase.

DIRECTIVE: S- Ref 10330 - Thus, in addition to modifying the Reliability Standard to identify generator operators as applicable entities, we direct the ERO to develop specific Requirements addressing the scope, content and duration appropriate for generator operator

Para 1363

"Para 1363 Further, the Commission agrees with MidAmerican, SDG&E and others that the experience and knowledge required by transmission operators about Bulk-Power System operations goes well beyond what is needed by generation operators; therefore, training for generator operators need not be as extensive as that required for transmission operators. Accordingly, the training requirements developed by the ERO should be tailored in their scope, content and duration so as to be appropriate to generation operations personnel and the objective of promoting system reliability. Thus, in addition to modifying the Reliability Standard to identify generator operators as applicable entities, we direct the ERO to develop specific Requirements addressing the scope, content and duration appropriate for generator operator personnel.

Para 1359 The Commission explained in the NOPR that transmission operators and balancing authorities are not the only entities that have operating personnel in positions that directly impact the reliable operation of the Bulk-Power System; and included generator operators among those that have such an impact. Xcel and others oppose extending the applicability of PER-002-0 to generator operators, because they take directions from balancing authorities and others, which limits their ability to impact reliability. Although a generator may be given direction from the balancing authority, it is essential that generator operator personnel have appropriate training to understand those instructions, particularly in an emergency situation in which instructions may be succinct and require immediate action. Further, if communication is lost, the generator operator personnel should have had sufficient training to take appropriate

action to ensure reliability of the Bulk-Power System. Thus, we direct the ERO to develop a modification to make PER-002-0 applicable to generator operators.

"

Assigned: Project 2010-01 - Support Personnel Training

Future project

Status: In Drafting Delivery: 2014

Solution Details:

Future project

DIRECTIVE: S- Ref 10323 - Expand the applicability section to include reliability coordinators, local transmission control center operating personnel, generator operators centrally-located at a generator control center with direct impact on the reliable operation of

Para 1372

"Expand the applicability section to include reliability coordinators, local transmission control center operating personnel, generator operators centrally-located at a generator control center with direct impact on the reliable operation of the bulk power system, and operations planning and operations support staff that carry out outage planning and assessments and those who develop SOLs, IROLs, or operating nomograms."

Assigned: Project 2010-01 - Support Personnel Training

The new standard has been approved by the BOT and has been filed with FERC.

Status: In Drafting Delivery: 2014

Solution Details:

The new standard has been approved by the BOT and has been filed with FERC. RCs are covered in the new standard LCCs and GOs are going to be covered in another project to be initiated after PER-005 is complete (Project 2010-01). Issue of LCCs and GOs need to be resolved. Considered - address in next phase.

System Personnel Training Reliability Standards (Order 742)

DIRECTIVE: S- Ref 10783 - The Commission directs NERC to develop a definition of local transmission control center in the standards development project for developing the training requirements for local transmission control center operator personnel.

Para 64

"Accordingly, we adopt our NOPR proposal and direct the ERO to develop through a separate Reliability Standards development project formal training requirements for local transmission control center operator personnel. Finally, given the numerous comments stating that term local transmission control center should be defined, we direct NERC to develop a definition of local transmission control center in the standards development project for developing the training requirements for local transmission control center operator personnel. We will not evaluate Associated Electric's proposed definition but, rather, leave it to the ERO to develop an appropriate definition that reflects the scope of local transmission control centers. The Commission will not opine on the appropriate definition of local transmission control center, as this definition can be addressed first using NERC's Reliability Standards Development Procedures."

Assigned: Project 2010-01 - Support Personnel Training

Pending

Status: Pending Delivery: 2014

Solution Details:

Pending

DIRECTIVE: S- Ref 10782 - The Commission directs NERC to develop formal training requirements for local transmission control center operator personnel.

Para 64

"Accordingly, we adopt our NOPR proposal and direct the ERO to develop through a separate Reliability Standards development project formal training requirements for local transmission control center operator personnel. Finally, given the numerous comments stating that term local

transmission control center should be defined, we direct NERC to develop a definition of local transmission control center in the standards development project for developing the training requirements for local transmission control center operator personnel. We will not evaluate Associated Electric's proposed definition but, rather, leave it to the ERO to develop an appropriate definition that reflects the scope of local transmission control centers. The Commission will not opine on the appropriate definition of local transmission control center, as this definition can be addressed first using NERC's Reliability Standards Development Procedures..

Additional Info from Para 63

In its comments, NERC has said that it intends to generally model local control center operating personnel training on PER-005-1. Thus, we expect that the Reliability Standard that is developed will require training for local transmission control center that does not significantly diverge from the training requirements set forth in PER-005-1. If the ERO proposes a Reliability Standard that differs significantly from the approved PER-005-1 requirements, NERC must provide in its petition seeking approval of such future standard, adequate technical analysis supporting the different approach."

Assigned: Project 2010-01 - Support Personnel Training

Pending

Status: Pending Delivery: 2014

Solution Details:

Pending

DIRECTIVE: S- Ref 10781 - Directs (soft) us to consider developing a flexible implementation plan for PER-005-1 R3.1

Para 24

"With respect to EELs comment regarding the effective date for entities that may become, in the future, subject to the simulator training requirement in PER-005-1, R3.1, the Commission believes that this issue should be considered by the ERO. We note that, with respect to the Critical Infrastructure Protection (CIP) Reliability Standards, NERC has developed a separate implementation plan that essentially gives responsible entities some lead time before newly acquired assets must be in compliance with the effective CIP Reliability Standards. We direct NERC to consider the necessity of developing a similar implementation plan with respect to PER-005-1, Requirement R3.1."

Assigned: Project 2010-01 - Support Personnel Training

Pending

Status: Pending Delivery: 2014

Solution Details:

Pending

Project 2010-02 Connecting New Facilities to the Grid

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10095 - Consider FirstEnergys suggestion to include a reference to TPL-004-0.

Para 692

"The Commission notes that APPA and EEI agree with the Commissions proposed directive to NERC to modify FAC-002-0 to require evaluation of system performance under both normal and contingency conditions by referencing TPL-001-0 through TPL-003-0. The Commission also notes that NERC, in response to the Staff Preliminary Assessment, has also agreed with the same proposal. These three TPL Reliability Standards cover normal operation, first contingency operation and multiple contingency operations respectively. The Commission disagrees with Entergy that TPL-001-0 and TPL-002-0 are sufficient because it is important to plan for new facilities taking into account not only normal circumstances but also contingencies. In addition, we note that including TPL-001-0 through TPL-003-0 will result in the FAC-002 Reliability Standard being consistent with Order No. 2003, which requires interconnecting entities to take into account multiple contingencies in interconnection studies. With respect to FirstEnergys suggestion to also include a reference to Reliability Standard TPL-004-0, we direct the ERO to consider it through the Reliability Standards development process."

Assigned: Project 2010-02 - Connecting New Facilities to the Grid

Considered - address in next phase.

Status: *In Drafting* Delivery: 2017

Solution Details:

Considered - address in next phase.

DIRECTIVE: S- Ref 10097 - Address other commenters concerns in future revisions to the standard.

Para 687

"All of the above commenters request clarification of Requirement R1 in the Reliability Standard that states that various functional entities shall each coordinate and cooperate on its assessments with its transmission planner and planning authority. The Commission believes that all entities listed in the Applicability section have a stake in the performance of the system and should have the opportunity to provide input in the assessment under R1. The Commission believes that commenters have raised valid concerns that, if addressed, would make the Reliability Standard better. The wording would allow a number of organizational approaches to achieving the goal of performing an analysis. The Commission does not intend to limit which organizational approach is used by the entities, only to assure that a single competent and collaborative analysis is performed. Therefore, the Commission directs the ERO to address these concerns in the Reliability Standards development process.

"

Assigned: Project 2010-02 - Connecting New Facilities to the Grid

To be considered in later phase.

Status: *In Drafting* Delivery: 2017

Solution Details:

To be considered in later phase.

Project 2010-03 Modeling Data

Preventing Undue Discrimination and Preference in Transmission Service (Order 890)

DIRECTIVE: S- Ref 10272 - The Commission directs public utilities, working through NERC, to modify the reliability standards MOD-010 through MOD-025 to incorporate a requirement for the periodic review and modification of models for (1) load flow base cases with con

Para 290

"The Commission directs public utilities, working through NERC, to modify the reliability standards MOD-010 through MOD-025 to incorporate a requirement for the periodic review and modification of models for (1) load flow base cases with contingency, subsystem, and monitoring files, (2) short circuit data, and (3) transient and dynamic stability simulation data, in order to ensure that they are up to date. This means that the models should be updated and benchmarked to actual events. We find that this requirement is essential in order to have an accurate simulation of the performance of the grid and from which to comparably calculate ATC, therefore increasing transparency and decreasing the potential for undue discrimination by transmission providers."

Assigned: Project 2010-03 - Modeling Data

TBD

Status: *In Drafting* Delivery: 2016

Solution Details:

TBD

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10268 - Address critical energy infrastructure confidentiality issues as part of the standard development process.

Para 1152

"Address critical energy infrastructure confidentiality issues as part of the standard development process."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10269 - Expand the applicability to include transmission operators

Para 1154

"Expand the applicability to include transmission operators"

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10271 - We adopt our NOPR proposal that the planning authority should be included in this Reliability Standard because the planning authority is the entity responsible for the coordination and integration of transmission facilities and resource pla

Para 1155

"We adopt our NOPR proposal that the planning authority should be included in this Reliability Standard because the planning authority is the entity responsible for the coordination and integration of transmission facilities and resource plans, as well as one of the entities responsible for the integrity and consistency of the data"

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10273 - Expand the applicability to include the planning authority.

Para 1162

"Expand the applicability to include the planning authority."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10276 - Provide a list of faults and disturbances used in performing dynamics system studies for operation and planning.

Para 1178

"Provide a list of faults and disturbances used in performing dynamics system studies for operation and planning."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10277 - Address critical energy infrastructure confidentiality issues as part of the standard development process.

Para 1181

"Address critical energy infrastructure confidentiality issues as part of the standard development process."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10267 - Require transmission planners to provide the contingency lists they use in performing system operation and planning studies.

Para 1148

"Require transmission planners to provide the contingency lists they use in performing system operation and planning studies."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase

Status: *In Drafting* Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10284 - Para 1184 We therefore direct the ERO to add the planning authority to the list of applicable entities.

Para 1184

"1184. We adopt our NOPR proposal that planning authorities should be included in this Reliability Standard because the planning authority is the entity responsible for the coordination and integration of transmission facilities and resource plans, as well as one of the entities

responsible for the integrity and consistency of the data. We therefore direct the ERO to add the planning authority to the list of applicable entities."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10360 - Consider APPAs suggestions for interconnection-wide consistency in the standards development process.

Para 1524

"Consider APPAs suggestions for interconnection-wide consistency in the standards development process."

Assigned: Project 2010-03 - Modeling Data

Future project
Status: In Drafting Delivery: 2016
Solution Details:
Future project

DIRECTIVE: S- Ref 10280 - Permit entities to estimate dynamics stat if they are unable to obtain unit specific information.

Para 1197

"Permit entities to estimate dynamics stat if they are unable to obtain unit specific information."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10281 - Require verification of the dynamic models with actual disturbance data.

Para 1197

"Require verification of the dynamic models with actual disturbance data."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10282 - The Commission directs the ERO to expand the applicability section in MOD-013-1 to include planning authorities because they are the entities responsible for the coordination and integration of transmission facilities and resource plans.

Para 1199

"1199. We adopt our NOPR proposal and direct the ERO to expand the applicability section in this Reliability Standard to include planning authorities because they are the entities responsible for the coordination and integration of transmission facilities and resource plans, as well as one of the entities responsible for the integrity and consistency of the data."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10286 - Require models to be validated against actual system response.

Para 1210

"Require models to be validated against actual system response."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10287 - If model output is not within the accuracy required, the model shall be modified to achieve the necessary accuracy.

Para 1211

"If model output is not within the accuracy required, the model shall be modified to achieve the necessary accuracy."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10290 - Require actual system events be simulated and dynamics system model output be validated against actual system response.

Para 1220

"Require actual system events be simulated and dynamics system model output be validated against actual system response."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10278 - Para 1183 We agree with APPA that the functional entity responsible for providing the fault and disturbance list should be the transmission planner, instead of the transmission owner, as proposed in the NOPR. We also agree with APPA that

Para 1184

"Expand the applicability to include transmission operators, planning authorities, and transmission planners."

Assigned: Project 2010-03 - Modeling Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

Project 2010-04 Demand Data

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10311 - Allow resource planners to analyze the causes of differences between actual and forecasted demands, and identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Paragraph 1298. We agree

Para 1298

"Allow resource planners to analyze the causes of differences between actual and forecasted demands, and identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Paragraph 1298. We agree with FirstEnergy and SMA that standardization of principles on reporting and validating DSM program information will provide consistent and uniform evaluation of demand response to facilitate system operator confidence in relying on such resources, which will further increase accuracy of transmission system reliability assessment and consequently enhance overall reliability. We direct the ERO to modify this Reliability Standard to allow resource planners to analyze the causes of differences between actual and forecasted demands, and to identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Therefore, we adopt the NOPR proposal and direct the ERO to modify MOD-021-0 by adding a requirement for standardization of principles on reporting and validating DSM program information."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10310 - Standardize principles on reporting and validation of DSM program information. Paragraph 1298. We agree with FirstEnergy and SMA that standardization of principles on reporting and validating DSM program information will provide consistent

Para 1298

"Standardize principles on reporting and validation of DSM program information. Paragraph 1298. We agree with FirstEnergy and SMA that standardization of principles on reporting and validating DSM program information will provide consistent and uniform evaluation of demand response to facilitate system operator confidence in relying on such resources, which will further increase accuracy of transmission system reliability assessment and consequently enhance overall reliability. We direct the ERO to modify this Reliability Standard to allow resource planners to analyze the causes of differences between actual and forecasted demands, and to identify any corrective actions that should be taken to improve forecasted demand responses for future forecasts. Therefore, we adopt the NOPR proposal and direct the ERO to modify MOD-021-0 by adding a requirement for standardization of principles on reporting and validating DSM program information."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10308 - Require reporting of the accuracy, error, and bias of controllable load forecasts. Paragraph 1289. The Commission approves Reliability Standard MOD-020-0 as mandatory and enforceable and directs the ERO to develop a modification to MOD-020

Para 1287

"Require reporting of the accuracy, error, and bias of controllable load forecasts. Paragraph 1289. The Commission approves Reliability Standard MOD-020-0 as mandatory and enforceable

and directs the ERO to develop a modification to MOD-020-0 through the Reliability Standards development process to require reporting of the accuracy, error and bias of controllable load forecasts."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10307 - Analyze differences between actual and forecasted demands for five years of actual controllable load and identify what corrective actions should be taken to approve controllable load forecasting for the 10-year planning horizon. Paragraph

Para 1277

"Analyze differences between actual and forecasted demands for five years of actual controllable load and identify what corrective actions should be taken to approve controllable load forecasting for the 10-year planning horizon. Paragraph 1277. We direct the ERO to include APPAs proposal in the Reliability Standards development process to add a new requirement to MOD-019-0 that would oblige resource planners to analyze differences between actual and forecasted demands for the five years of actual controllable load and identify what corrective actions should be taken to improve controllable load forecasting for the 10-year planning horizon."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10306 - Require reporting of the accuracy, error, bias of controllable load forecasts. Paragraph 1276. The Commission adopts the NOPR proposal directing the ERO to modify this standard to require reporting of the accuracy, error and bias of contro

Para 1276

"Require reporting of the accuracy, error, bias of controllable load forecasts. Paragraph 1276. The Commission adopts the NOPR proposal directing the ERO to modify this standard to require reporting of the accuracy, error and bias of controllable load forecasts. This requirement will enable planners to get a more reliable picture of the amount of controllable load that is actually available, therefore allowing planners to conduct more accurate system reliability assessments. The Commission finds that controllable load can be as reliable as other resources, and therefore should also be subject to the same reporting requirements. Although we recognize that verifying load control devices and interruptible loads may be complex, we do not believe that it is overly so. Further, we believe that the ERO, through its Reliability Standards development process can develop innovative solutions to the Commissions concern. We also note that EEI is concerned about such testing at times of peak load. We clarify that we are not requiring the testing to be conducted at peak load conditions. Consequently, we reject the proposals of EEI, FirstEnergy and International Transmission to discard the requirement for reporting of the accuracy, error and bias of controllable load forecasts."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10305 - Require users, owners, and operators to provide to the regional entity information related to forecasts of interruptible demands and direct control load management. Paragraph 1275. As an initial matter, we disagree that MOD-019-0 cannot be

Para 1275

"Require users, owners, and operators to provide to the regional entity information related to forecasts of interruptible demands and direct control load management. Paragraph 1275. As an initial matter, we disagree that MOD-019-0 cannot be implemented because it is dependent on MOD-016-0, which further depends on various unapproved standards. As previously stated, we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified under related standards that are deferred, and believe there should be no difficulties complying with this Reliability Standard. We reiterate that ongoing collection of data is necessary to maintain system reliability, and approval of MOD-019-0 will help to achieve this goal. We therefore direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity information related to forecasts of interruptible demands and direct control load management."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10304 - Regarding TAPSs concern that small entities should not be required to comply with MOD-018-0 because their forecasts are not significant for system reliability purposes, the Commission directs the ERO to address this matter in the Reliability Standards development process.

Para 1265

"Regarding TAPSs concern that small entities should not be required to comply with MOD-018-0 because their forecasts are not significant for system reliability purposes, the Commission directs the ERO to address this matter in the Reliability Standards development process"

Assigned: Project 2010-04 - Demand Data

Considered - address in next phase

Status: In Drafting Delivery: 2016

Solution Details:

Considered - address in next phase

DIRECTIVE: S- Ref 10302 - The Commission therefore directs the ERO to consider MISOs concerns in the Reliability Standards development process.

Para 1256 Sen 3

"Para 1256

The Commission disagrees in general with MISOs recommendation to allow some exceptions to the requirement to provide hourly demand data. However, the metering for some customer classes may not be designed to provide certain types of data. The Commission therefore directs the ERO to consider MISOs concerns in the Reliability Standards development process.

Para 1245

MISO recommends that the Commission direct NERC to change the requirement of this standard so that aggregated actual hourly demand data (at the balancing authority level) are to be provided within 30 calendar days of a request from NERC. MISO believes that load aggregated at this level should be sufficient for the modeling activities associated with system reliability. MISO understands that hourly data is collected by those utilities that have balancing authority responsibilities, and that these utilities can report aggregated hourly loads for their responsibility area within 30 days. MISO notes that some balancing authority utilities provide energy services to smaller municipal or distribution cooperative utilities where the metering system records only the peak demand and total energy supplied over approximately 30 days. MISO cautions that the balancing authority will usually have hourly data for demand and energy within a segment of the network, but may have no hourly metering on a specific customer served by that segment.

"

Assigned: Project 2010-04 - Demand Data

Considered - address in next phase
Status: In Drafting Delivery: 2016
Solution Details:
Considered - address in next phase

DIRECTIVE: S- Ref 10298 - Expand the applicability to include transmission planners. Paragraph 1257. The Commission approves Reliability Standard MOD-017-0 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to MOD-01

Para 1255

"Expand the applicability to include transmission planners. Paragraph 1257. The Commission approves Reliability Standard MOD-017-0 as mandatory and enforceable. In addition, the Commission directs the ERO to develop a modification to MOD-017-0 through the Reliability Standards development process that includes requirements for: (1) reporting of temperature and humidity along with the peak loads; (2) reporting of accuracy, error and bias of load forecasts compared to actual loads taking temperature and humidity variations into account; (3) addressing methods to correct forecasts to minimize prior inaccuracies, errors and bias and (4) including the transmission planner in the applicability section."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.
Status: In Drafting Delivery: 2016
Solution Details:
SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10297 - Address methods to correct forecasts to minimize prior inaccuracies, errors, and bias. Paragraph 1252. The Commission agrees with APPA that accuracy, error and bias of load forecasts alone will not increase the reliability of load forecast

Para 1252

"Address methods to correct forecasts to minimize prior inaccuracies, errors, and bias. Paragraph 1252. The Commission agrees with APPA that accuracy, error and bias of load forecasts alone will not increase the reliability of load forecasts, and, as a result, will not affect system reliability. Understanding of the differences without action based on that understanding would not change anything. Therefore, we direct the ERO to add a requirement that addresses correcting forecasts based on prior inaccuracies, errors and bias."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.
Status: In Drafting Delivery: 2016
Solution Details:
SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10296 - Reporting of accuracy, error and bias of load forecasts compared to actual loads taking temperature and humidity conditions into account. Paragraph 1251. The Commission adopts the NOPR proposal directing the ERO to modify the Reliability St

Para 1251

"Reporting of accuracy, error and bias of load forecasts compared to actual loads taking temperature and humidity conditions into account. Paragraph 1251. The Commission adopts the NOPR proposal directing the ERO to modify the Reliability Standard to require reporting of the accuracy, error and bias of load forecasts compared to actual loads with due regard to temperature and humidity variations. This requirement will measure the closeness of the load forecast to the actual value. We understand that load forecasting is a primary factor in achieving Reliable Operation. Underestimating load growth can result in insufficient or inadequate generation and transmission facilities, causing unreliability in real-time operations. Measuring the accuracy, error and bias of load forecasts is important information for system planners to include in their studies, and also improves load forecasts themselves."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10300 - We agree, however, with APPA that certain types of load are not sensitive to temperature and humidity. We therefore find that the ERO should address Alcoas concerns in its Reliability Standards development process.

Para 1250

"Para 1250 We also reject Alcoas proposal that the reporting of temperature and humidity along with peak loads should apply only to load that varies with temperature and humidity because it essentially is a request for an exemption from the requirements of the Reliability Standard and should therefore be directed to the ERO as part of the Reliability Standards development process. We agree, however, with APPA that certain types of load are not sensitive to temperature and humidity. We therefore find that the ERO should address Alcoas concerns in its Reliability Standards development process.

Para 1240 Xcel states that in many areas of the country, humidity is not a weather-indicator for peak load. Xcel therefore suggests that instead of including a reporting requirement for humidity, the standard be revised to include a more generic term, such as peak producing weather conditions. Alcoa requests that the Commission clarify that these requirements would only apply to load that varies with temperature and humidity.

(Plus footnote 359: Alcoa states that because its smelting load (the vast majority of its load) does not vary in accordance with temperature and humidity, comparing Alcoa's load forecasts to actual loads taking this information into account would be burdensome without being useful.)
"

Assigned: Project 2010-04 - Demand Data

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10295 - Include requirements for reporting of temperature and humidity along with the peak loads. Paragraph 1249. The Commission also directs the ERO to modify the Reliability Standard to require reporting of temperature and humidity along with peak

Para 1249

"Include requirements for reporting of temperature and humidity along with the peak loads. Paragraph 1249. The Commission also directs the ERO to modify the Reliability Standard to require reporting of temperature and humidity along with peak load because actual load must be weather normalized for meaningful comparison with forecasted values.³⁶¹ In response to MidAmericans observation that it sees little value in collecting this data, we believe that collecting it will allow all load data to be weather-normalized, which will provide greater confidence when comparing data accuracy, which ultimately will enhance reliability. As a result, we reject Xcel's proposal that the standard be revised to include only the generic term peak producing weather conditions because it is too generic for a mandatory Reliability Standard."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10294 - Expand the applicability to include transmission planners. Paragraph 1224. In the NOPR, the Commission proposed to approve Reliability Standard MOD-016-1 as mandatory and enforceable. In addition, the Commission proposed to direct NERC to

Para 1232

"Expand the applicability to include transmission planners. Paragraph 1224. In the NOPR, the Commission proposed to approve Reliability Standard MOD-016-1 as mandatory and enforceable. In addition, the Commission proposed to direct NERC to submit a modification to MOD-016-1 that expands the applicability section to include the transmission planner."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: *In Drafting* Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10293 - Modify the definition of DSM to include any other entities that undertake activities or programs to influence the amount or timing of electricity they use without violating other reliability standards requirements. Paragraph 1232. Supporte

Para 1232

"Modify the definition of DSM to include any other entities that undertake activities or programs to influence the amount or timing of electricity they use without violating other reliability standards requirements. Paragraph 1232. Supported by many commenters, the Commission directs the ERO to modify MOD-016-1 and expand the applicability section to include the transmission planner, on the basis that under the NERC Functional Model the transmission planner is responsible for collecting system modeling data, including actual and forecast load, to evaluate transmission expansion plans. We disagree with EEI that this Reliability Standard should not be applied to the transmission planner because load-related data for controllable DSM is not only needed for distribution and transmission operations, but is also necessary for the transmission planner to take controllable DSM into account in planning the transmission system. Requirement R1.1 relates to data submittal, and requires data to be consistent with that supplied for the TPL-005 and TPL-006 standards, which clearly apply to transmission planners. We approve the EROs definition in the glossary of DSM as all activities or programs undertaken by a Load-Serving Entity or its customers to influence the amount or timing of electricity they use. Only activities or programs that meet the ERO definition, with the modification directed below, may be treated as DSM for purposes of the Reliability Standards. Recognizing the potential role that industrial customers who do not take service through an LSE and load aggregators, for example, may play in meeting the Reliability Standards, we direct the ERO to modify the definition of DSM. Specifically, we direct the ERO to add to its definition of DSM any other entities that undertake activities or programs to influence the amount or timing of electricity they use without violating other Reliability Standard Requirement."

Assigned: Project 2010-04 - Demand Data

SAR has been developed, but standard development has not begun for this project.

Status: *In Drafting* Delivery: 2016

Solution Details:

SAR has been developed, but standard development has not begun for this project.

Project 2010-05.1 Phase 1 of Protection Systems: Misoperations

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10349 - Consider ISO-NEs suggestion that LSEs and transmission operators should be listed as applicable entities.

Para 1469

"Consider ISO-NEs suggestion that LSEs and transmission operators should be listed as applicable entities."

Assigned: Project 2010-05.1 - Phase 1 of Protection Systems: Misoperations

LSE and transmission operators do not own BES Protection Systems or apparatus. The owners of the equipment have been assigned responsibility for this standard.

Status: In Drafting Delivery: 2012

Solution Details:

LSE and transmission operators do not own BES Protection Systems or apparatus. The owners of the equipment have been assigned responsibility for this standard.

DIRECTIVE: S- Ref 10346 - Consider if greater consistency can be achieved in the standard as suggested by APPA.

Para 1461

"Consider if greater consistency can be achieved in the standard as suggested by APPA."

Assigned: Project 2010-05.1 - Phase 1 of Protection Systems: Misoperations

Greater consistency has been provided by establishing the core elements that must be included in any entity's procedure for identifying and correcting Protection System Misoperations.

Status: In Drafting Delivery: 2012

Solution Details:

Greater consistency has been provided by establishing the core elements that must be included in any entity's procedure for identifying and correcting Protection System Misoperations. Additionally, further consistency has been created by specifying the format for periodic compliance reporting.

Project 2010-05.2 Phase 2 of Protection Systems: SPS and RAS

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10361 - Consider APPAs suggestions for interconnection-wide consistency in the standards development process.

Para 1528

"Consider APPAs suggestions for interconnection-wide consistency in the standards development process."

Assigned: Project 2010-05.2 - Phase 2 of Protection Systems: SPS and RAS

Future project

Status: *In Drafting* Delivery: 2014

Solution Details:

Future project

DIRECTIVE: S- Ref 10359 - Consider APPAs suggestions for interconnection-wide consistency in the standards development process.

Para 1520

"Consider APPAs suggestions for interconnection-wide consistency in the standards development process."

Assigned: Project 2010-05.2 - Phase 2 of Protection Systems: SPS and RAS

Future project

Status: *In Drafting* Delivery: 2014

Solution Details:

Future project

DIRECTIVE: S- Ref 10363 - Require that documentation identified in requirement R2 be routinely provided to NERC or the regional entity. that includes: (1) and (2) a requirement that documentation identified in Requirement R2 shall be routinely provided to the ERO

Due 12/31/2014

Para 1546

"Require that documentation identified in requirement R2 be routinely provided to NERC or the regional entity. that includes: (1) and (2) a requirement that documentation identified in Requirement R2 shall be routinely provided to the ERO or Regional Entity"

Assigned: Project 2010-05.2 - Phase 2 of Protection Systems: SPS and RAS

Project 2010-13.2 Phase 2 of Relay Loadability Order 733: Generation

Transmission Relay Loadability Reliability Standard - Docket No. RM08-13 (Order 733)

DIRECTIVE: S- 10724 - The Commission expects the ERO to develop the Reliability Standard addressing generator relay loadability as a new Standard, with its own individual timeline, and not as a revision to an existing Standard.

Para 106

"Para 106 - We also expect that the ERO will develop the Reliability Standard addressing generator relay loadability as a new Standard, with its own individual timeline, and not as a revision to an existing Standard. While we agree that PRC-001-1 requires, among other things, the coordination of generator and transmission protection systems, we think that generator relay loadability, like transmission relay loadability, should be addressed in its own Reliability Standard if it is not to be addressed with transmission relay loadability."

Assigned: Project 2010-13.2 - Phase 2 of Relay Loadability Order 733: Generation

TBD

Status: In Drafting Delivery: 2014

Solution Details:

TBD

Project 2010-13.3 Phase 3 of Relay Loadability Order 733: Stable Power Swings

Transmission Relay Loadability Reliability Standard - Docket No. RM08-13 (Order 733)

DIRECTIVE: S- Ref 10729 - The Commission directs the ERO to develop a new Reliability Standard that prevents protective relays from operating unnecessarily due to stable power swings by requiring the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases-out relays that cannot meet this requirement.

Para 173

"Para 173 - In sum, we adopt the NOPR proposal and direct the ERO to develop a new Reliability Standard that prevents protective relays from operating unnecessarily due to stable power swings by requiring the use of protective relay systems that can differentiate between faults and stable power swings and, when necessary, phases-out relays that cannot meet this requirement. NERC requests that the Commission allow PRC-023-1 to remain focused on steady state relay loadability and leave stable power swings to be specifically addressed in a different Reliability Standard. We agree that this is a reasonable approach. Meanwhile, to maintain reliability, the Commission expects entities to continue to include the effects of protection settings in TPL and TOP assessments for future systems and in the determination of IROLs and SOLs."

Assigned: Project 2010-13.3 - Phase 3 of Relay Loadability Order 733: Stable Power Swings

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10728 - The Commission directs the ERO to consider islanding strategies that achieve the fundamental performance for all islands in developing the new Reliability Standard addressing stable power swings.

Para 162

"Para 142 - The PSEG Companies speculate that the post-blackout relay mitigation programs conducted by NERC may have already mitigated the unexpected tripping of the transmission lines during the August 2003 blackout. The PSEG Companies add that it is possible that the only reason the blackout stopped was because these lines unexpectedly tripped. The PSEG Companies assert that the approach to stable power swings should be all encompassing and include the development and implementation of islanding strategies in conjunction with out-of-step blocking (or tripping) requirements.

Para 162 - The PSEG Companies also assert that the Commissions approach to stable power swings should be inclusive and include islanding strategies in conjunction with out-of-step blocking or tripping requirements. We agree with the PSEG Companies and direct the ERO to consider islanding strategies that achieve the fundamental performance for all islands in developing the new Reliability Standard addressing stable power swings.

"

Assigned: Project 2010-13.3 - Phase 3 of Relay Loadability Order 733: Stable Power Swings

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10727 - find that undesirable relay operation due to stable power swings is a specific matter that the ERO must address to carry out the goals of section 215, and we direct the ERO to develop a Reliability Standard addressing undesirable relay operation due to

Para 153

"find that undesirable relay operation due to stable power swings is a specific matter that the ERO must address to carry out the goals of section 215, and we direct the ERO to develop a Reliability Standard addressing undesirable relay operation due to stable power swings."

Assigned: Project 2010-13.3 - Phase 3 of Relay Loadability Order 733: Stable Power Swings

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

Project 2010-14.1 Phase 1 of Balancing Authority Reliability-based Controls: Reserves

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10030 - Change title to be neutral as to the source of regulating reserves and allows the inclusion of technically qualified DSM.

Para 404

"Change title to be neutral as to the source of regulating reserves and allows the inclusion of technically qualified DSM."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

Status: *In Drafting* Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

DIRECTIVE: S- Ref 10029 - Develop a process to calculate the minimum regulating reserve for a balancing authority, taking into account expected load and generation variation and transactions being ramped in and out.

Para 396

"Develop a process to calculate the minimum regulating reserve for a balancing authority, taking into account expected load and generation variation and transactions being ramped in and out."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

SDT believes that BAL-001-1 Requirement R2-BAAL and BAL-012-1 Operating Reserve standard will address.

Status: *In Drafting* Delivery: 2013

Solution Details:

SDT believes that BAL-001-1 Requirement R2-BAAL and BAL-012-1 Operating Reserve standard will address.

DIRECTIVE: S- Ref 10015 - Define a significant (frequency) deviation and a reportable event, taking into account all events that have an impact on frequency, and how balancing authorities should respond.

Para 355

"Define a significant (frequency) deviation and a reportable event, taking into account all events that have an impact on frequency, and how balancing authorities should respond."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard definition of "Balancing Contingency Event" and in BAL-012-1 standard Requirements R3 and R6.

Status: *In Drafting* Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-002-2 standard definition of "Balancing Contingency Event" and in BAL-012-1 standard Requirements R3 and R6.

DIRECTIVE: S- Ref 10014 - Requires any single reportable disturbance that has a recovery time of 15 minutes or longer be reported as a violation.

Para 354

"Requires any single reportable disturbance that has a recovery time of 15 minutes or longer be reported as a violation."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

Status: *In Drafting* Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

DIRECTIVE: S- Ref 10013 - Address Commission concerns about having enough contingency reserves to respond to an event on the system in requirement 3.1 and how such reserves are measured.

Para 351

"Address Commission concerns about having enough contingency reserves to respond to an event on the system in requirement 3.1 and how such reserves are measured."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

DIRECTIVE: S- Ref 10012 - Include a continent-wide contingency reserve policy

Para 340

"Include a continent-wide contingency reserve policy"

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-012-1 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-012-1 standard.

DIRECTIVE: S- Ref 10011 - Include a requirement that explicitly provides that DSM may be used as a resource for contingency reserves.

Para 330

"Include a requirement that explicitly provides that DSM may be used as a resource for contingency reserves."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-002-2 standard.

DIRECTIVE: S- Ref 10008 - Regional Differences to BAL-001-0: ERCOT Control Performance Standard 2: Include requirements concerning frequency response contained in Section 5 of the ERCOT protocols. Paragraph 313. The Commission approves the ERCOT regional difference

Para 315

"Regional Differences to BAL-001-0: ERCOT Control Performance Standard 2: Include requirements concerning frequency response contained in Section 5 of the ERCOT protocols. Paragraph 313. The Commission approves the ERCOT regional difference as mandatory and enforceable. Order No. 672 explains that uniformity of Reliability Standards should be the goal and the practice, the rule rather than the exception. However, the Commission has stated that, as a general matter, regional differences are permissible if they are either more stringent than the continent-wide Reliability Standard, or if they are necessitated by a physical difference in the Bulk-Power System. Regional differences must still be just, reasonable, not unduly discriminatory or preferential and in the public interest. 314. The Commission finds that ERCOT's approach under section 5 of the ERCOT protocols appears to be a more stringent practice than Requirement R2 in BAL-001-0 and therefore approves the regional difference. 315. As proposed in the NOPR, the Commission directs the ERO to file a modification of the ERCOT regional difference to include the requirements concerning frequency response contained in section 5 of the ERCOT protocols. As with other new regional differences, the Commission expects that the ERCOT regional difference will include Requirements, Measures and Levels of Non-Compliance sections."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

Status: In Drafting Delivery: 2013

Solution Details:

The SDT is addressing this in the draft of the proposed BAL-001-1 standard.

Project 2010-14.2 Phase 2 of Balancing Authority Reliability-based Control: Time Error, AGC, and Inadvertent

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10038 - Regional Differences to BAL-006-1: Inadvertent Interchange Accounting and Financial Inadvertent Settlement: Explore FirstEnergy's request to define the function of a waiver in the reliability standard development process.

Para 444

"Regional Differences to BAL-006-1: Inadvertent Interchange Accounting and Financial Inadvertent Settlement: Explore FirstEnergy's request to define the function of a waiver in the reliability standard development process."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10037 - Examine the WECC time error correction procedure as a possible guide..the Commission asks the ERO, when filing the new Reliability Standard, to explain how the new Reliability Standard satisfies the Commissions concerns

Para 438

"Examine the WECC time error correction procedure as a possible guide..the Commission asks the ERO, when filing the new Reliability Standard, to explain how the new Reliability Standard satisfies the Commissions concerns"

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10036 - Add measures concerning the accumulation of large inadvertent interchange balances and levels of non-compliance.

Para 428

"Add measures concerning the accumulation of large inadvertent interchange balances and levels of non-compliance."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10035 - The ERO is directed to consider those (FirstEnergy) suggestions in its Reliability Standards development process.

Para 419

"The ERO is directed to consider those (FirstEnergy) suggestions in its Reliability Standards development process."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

Considered - address in next phase.

Status: In Drafting Delivery: 2013

Solution Details:

Considered - address in next phase.

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent
Moved from Phase 1 (Project 2010-14.1)
Status: Pending
Solution Details:
Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10034 - Include a measure that provides for a verification process over the required automatic generation control, or regulating reserves a balancing authority maintains

Para 418

"Include a measure that provides for a verification process over the required automatic generation control, or regulating reserves a balancing authority maintains"

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)
Status: Pending
Solution Details:
Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10031 - Address comments of Xcel and FirstEnergy when the standard is revisited in the work plan. Xcel requests that the Commission reconsider Requirement R17 of this Reliability Standard stating that the accuracy ratings for older equipment (cu

Para 415

"Address comments of Xcel and FirstEnergy when the standard is revisited in the work plan.

Xcel requests that the Commission reconsider Requirement R17 of this Reliability Standard stating that the accuracy ratings for older equipment (current and potential transformers) may be difficult to determine and may require the costly replacement of this older equipment on combustion turbines and older units while adding little benefit to reliability. Xcel states that the Commission should clarify that Requirement R17 need only apply to interchange metering of the balancing area in those cases where errors in generating metering are captured in the imbalance responsibility calculation of the balancing area.

FirstEnergy suggests that a single entity should have the responsibility to establish, through an annual review process, the level of regulating reserves that a balancing authority must maintain pursuant to the control performance standard requirements.

FirstEnergy suggests that all generators and technically qualified DSM that participate in energy markets should install automatic generation control as a condition of market participation. In non-market areas, FirstEnergy suggests that balancing authorities could meet requirements through bilateral contracts or the normal scheduling process and suggests that the Commission might have to assert its jurisdiction and order technically qualified DSM providers to install automatic generation control at their facilities. FirstEnergy states that further work would need to be conducted on the technical qualifications and capacity thresholds that would control whether installation of automatic generation control would be required.

FirstEnergy states that Requirement R17 should include only control center devices instead of devices at each substation. FirstEnergy states that accuracy at the substation level is unnecessary and the costs to install automatic generation control equipment at each substation would be high. FirstEnergy also states that the term check in Requirement R17 needs to be clarified."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)
Status: Pending
Solution Details:
Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10033 - Para 406. Given that most of the commenters concerns over the inclusion of DSM as part of regulating reserves relate to the technical requirements, the Commission clarifies that to qualify as regulating reserves, these resources must be tec

Para 406

"406. Given that most of the commenters concerns over the inclusion of DSM as part of regulating reserves relate to the technical requirements, the Commission clarifies that to qualify as regulating reserves, these resources must be technically capable of providing the service. In particular, all resources providing regulation must be capable of automatically responding to real-time changes in load on an equivalent basis to the response of generation equipped with automatic generation control. From the examples provided above, the Commission understands that it may be technically possible for DSM to meet equivalent requirements as conventional generators and expects the Reliability Standards development process to provide the qualifications they must meet to participate. These qualifications will be reviewed by the Commission when the revised Reliability Standard is submitted to the Commission for approval."

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

In drafting

Status: *In Drafting* Delivery: 2013

Solution Details:

In drafting

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: *Pending*

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10023 - In the five-year review cycle of the standard, perform research that would provide a technical basis for the present or any alternative approach that is more effective and helps reduce inadvertent interchange.

Para 385

"Although the Commission noted in the NOPR that WECCs time error correction procedure appears to serve as a more effective means of accomplishing time error correction, based on concerns that there is no engineering basis for changing the time error correction to the WECC approach, the Commission will not direct the ERO to adopt requirements similar to WECCs procedure. With the exception of comments from APPA and EEI, most commenters do not believe or are uncertain about whether the WECC procedure is appropriate for the Eastern Interconnection. However, when this Reliability Standard is scheduled for its regular five-year cycle of review, the Commission directs the ERO to perform whatever research it and the industry believe is necessary to provide a sound technical basis for either continuing with the present practice or identifying an alternative practice that is more effective and helps reduce inadvertent interchange."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: *Pending*

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10022 - Include levels of non-compliance and additional measures for requirement R3.

Para 382

"Include levels of non-compliance and additional measures for requirement R3."

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: *Pending*

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

DIRECTIVE: S- Ref 10001 - Modify the term Operating Reserves in the NERC Glossary based on discussion in BAL002 and BAL-005

Para 1896

"Modify the term Operating Reserves in the NERC Glossary based on discussion in BAL002 and BAL-005"

Assigned: Project 2010-14.1 - Phase 1 of Balancing Authority Reliability-based Controls

To be considered in later phase.

Status: In Drafting Delivery: 2013

Solution Details:

To be considered in later phase.

Assigned: Project 2010-14.2 - Phase 2 of Balancing Authority Reliability-based Controls: Time Error, AGC, and Inadvertent

Moved from Phase 1 (Project 2010-14.1)

Status: Pending

Solution Details:

Moved from Phase 1 (Project 2010-14.1)

Project 2012-05 ATC Revisions - Order 729

Mandatory Reliability Standards for the Calculation of Available Transfer Capability, Capacity Benefit Margins, Transmission Reliability Margins, Total Transfer Capability, and Existing Transmission Commitments and Mandatory Reliability Standards for the (Order 729)

DIRECTIVE: S- Ref 10218 - directs the ERO to modify MOD-004-1 to clarify the term manage in Requirement R1.3. This modification should ensure that the Reliability Standard clarify how the transmission service provider will manage situations where the requested use o

Para 222

"directs the ERO to modify MOD-004-1 to clarify the term manage in Requirement R1.3. This modification should ensure that the Reliability Standard clarify how the transmission service provider will manage situations where the requested use of capacity benefit margin exceeds the capacity benefit margin available"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10206 - directs the ERO to develop a modification to the Reliability Standards pursuant to the EROs Reliability Standards development process to require disclosure of the various implementation documents to any registered entity who demonstrates to

Para 151

"directs the ERO to develop a modification to the Reliability Standards pursuant to the EROs Reliability Standards development process to require disclosure of the various implementation documents to any registered entity who demonstrates to the ERO a reliability need for such information."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10207 - Para 160 - in developing the modifications to the MOD Reliability Standards directed in this Final Rule, the ERO should consider generator nameplate ratings and transmission line ratings including the comments raised by Entegra and ISO/R

Para 160

"160. In Order No. 890, the Commission also expressed concern regarding the treatment of reservations with the same point of receipt (generator), but multiple points of delivery (load), in setting aside existing transmission capacity. The Commission found that such reservations should not be modeled in the existing transmission commitments calculation simultaneously if their combined reserved transmission capacity exceeds the generators nameplate capacity at the point of receipt. The Commission required the development of Reliability Standards that lay out clear instructions on how these reservations should be accounted for by the transmission service provider. The proposed Reliability Standards achieve this by requiring transmission service providers to identify in their implementation documents how they have implemented MOD-028-1, MOD-029-1, or MOD-030-2, including the calculation of existing transmission commitments. Thus we will not direct the ERO to develop a modification to address over-generation, as suggested by Entegra. Nonetheless, in developing the modifications to the MOD Reliability Standards directed in this Final Rule, the ERO should consider generator nameplate ratings and transmission line ratings including the comments raised by Entegra and ISO/RTO Council."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD
Status: In Drafting Delivery: 2016
Solution Details:
TBD

DIRECTIVE: S- Ref 10208 - directs the ERO to develop benchmarking and updating requirements to measure modeled available transfer and flowgate capabilities against actual values. Such requirements should specify the frequency for benchmarking and updating the availa

Para 162

"directs the ERO to develop benchmarking and updating requirements to measure modeled available transfer and flowgate capabilities against actual values. Such requirements should specify the frequency for benchmarking and updating the available transfer and flowgate capability values and should require transmission service providers to update their models after any incident that substantially alters system conditions, such as generation outages."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD
Status: In Drafting Delivery: 2016
Solution Details:
TBD

DIRECTIVE: S- Ref 10209 - directs the ERO, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, to develop a modification to MOD-028-1 and MOD-029-1 to specify that base generation schedules used in the calculation of available transfer c

Para 173

"Para 171 thru 173

The Commission finds that MOD-028-1 and MOD-029-1 fail to address the directive in Order No. 693 to specify how transmission service providers should determine which generators should be modeled in service when calculating available transfer capability. Specifically, the Commission directed the ERO to develop a modification to the Reliability Standards to specify that base generation schedules used in the calculation of available transfer capability will reflect the modeling of all designated network resources and other resources that are committed to or have the legal obligation to run, as they are expected to run, and to address the effect on available transfer capability of designating and undesignating a network resource.

NERC acknowledges that MOD-029-1 fails to address this directive. NERC and commenters cite to Requirement R3.1.3 of MOD-028-2 in support of arguments that the Reliability Standard reflects the modeling of designated network resources. That requirement, however, governs the calculation of total transfer capability, not existing transmission commitments. The only information provided as to the effect of designating and undesignating a network resource on existing transmission commitments is in Requirement R8 of MOD-028-1, which merely states that "the firm capacity set aside for Network Integration Transmission Service" will be included. The Reliability Standard fails to identify how that firm capacity will be calculated. By comparison, Requirements R6.1.2 and R6.2.2 of MOD-030-2 require transmission service providers to calculate existing transmission commitments by accounting for the impact of firm network service in their transmissions model based on, among other things, unit commitment and dispatch order that includes all designated network resources. Requirement R8 of MOD-001-1 further requires the transmission service provider to perform recalculations at specified frequencies to reflect changes over time.

The Commission therefore directs the ERO, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, to develop a modification to MOD-028-1 and MOD-029-1 to specify that base generation schedules used in the calculation of available transfer capability will reflect the modeling of all designated network resources and other resources that are committed to or

have the legal obligation to run, as they are expected to run, and to address the effect on available transfer capability of designating and undesignating a network resource.

"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10211 - The Commission directs the ERO to consider Entegras request regarding more frequent updates for constrained facilities through its Reliability Standards development process (see paragraph 177 of Order 729 for Entegra's comments).

Para 179

"Para 179 We agree that, in order to be useful, hourly, daily and monthly available transfer capability and available flowgate capability values must be calculated and posted in advance of the relevant time period. Requirement R8 of MOD-001-1 and Requirement R10 of MOD-030-2 require that such posting will occur far enough in advance to meet this need. With respect to Entegras request regarding more frequent updates for constrained facilities, we direct the ERO to consider this suggestion through its Reliability Standards development process. Further, we agree with Cottonwood regarding unscheduled or unanticipated events. Therefore, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, we direct the ERO to develop modifications to MOD-001-1 and MOD-030-2 to clarify that material changes in system conditions will trigger an update whenever practical. Finally, we clarify that these Reliability Standards shall not be used as a safe harbor to avoid other, more stringent reporting or update requirements.

Para 177 Entegra contends that the proposed Reliability Standard does not mandate any consistency or transparency regarding the timing of updates to available transfer capability calculations, nor does it require transmission service providers to consider whether such updates should be required more frequently for constrained facilities. Entegra states that while Requirement R8 of MOD-001-1 requires transmission service providers to update hourly, daily, and monthly available transfer capability values once every hour, day, or month, respectively, it does not set forth a deadline for such updates, nor does it require transmission service providers to disclose when such updates must occur, and that therefore the values may have become inaccurate by the time they are eventually disclosed. Accordingly, Entegra asks the Commission to direct the ERO to revise MOD-001-1, Requirement R8 to include a one-hour time limit for updates to daily and monthly available transfer capability values. In addition, Entegra asks the Commission to direct the ERO to modify the Reliability Standard to require transmission service providers to consider whether more frequent updates are necessary for constrained facilities.

"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10214 - the Commission directs the ERO to develop modifications to MOD-001-1 pursuant to the EROs Reliability Standards development process to prevent the double-counting of data inputs and assumptions. In developing these modifications, the ERO sh

Para 184

"the Commission directs the ERO to develop modifications to MOD-001-1 pursuant to the EROs Reliability Standards development process to prevent the double-counting of data inputs and assumptions. In developing these modifications, the ERO should consider the effects of conditional firm service."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10215 - directs the ERO to develop a modification to the Reliability Standard pursuant to its Reliability Standards development process requiring transmission service providers to include in their implementation documents any inconsistent modeling

Para 192

"directs the ERO to develop a modification to the Reliability Standard pursuant to its Reliability Standards development process requiring transmission service providers to include in their implementation documents any inconsistent modeling practices along with a justification for such inconsistencies"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10204 - directs the ERO to modify the Reliability Standards so as to increase the document retention requirements to a term of five years, in order to be consistent with the enforcement provisions established in Order No. 670.

Para 129

"directs the ERO to modify the Reliability Standards so as to increase the document retention requirements to a term of five years, in order to be consistent with the enforcement provisions established in Order No. 670."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10217 - direct the ERO to develop a modification to Requirements R3.1 and R.4.1 of MOD-004-1 to require load-serving entities and resource planners to determine generation capability import requirements by reference to one or more relevant studies

Para 220

"direct the ERO to develop a modification to Requirements R3.1 and R.4.1 of MOD-004-1 to require load-serving entities and resource planners to determine generation capability import requirements by reference to one or more relevant studies (loss of load expectation, loss of load probability or deterministic risk analysis) and applicable reserve margin or resource adequacy requirements, as relevant. Such a modification should ensure that a transmission service provider has adequate information to establish the appropriate level of capacity benefit margin."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10212 - The Commission directs the ERO to develop modifications to MOD-001-1 and MOD-030-2 to clarify that material changes in system conditions will trigger an update whenever practical (see also paragraph 23 of Order 729-A).

Para 179 Sen 5

"Para 179 We agree that, in order to be useful, hourly, daily and monthly available transfer capability and available flowgate capability values must be calculated and posted in advance of

the relevant time period. Requirement R8 of MOD-001-1 and Requirement R10 of MOD-030-2 require that such posting will occur far enough in advance to meet this need. With respect to Entegras request regarding more frequent updates for constrained facilities, we direct the ERO to consider this suggestion through its Reliability Standards development process. Further, we agree with Cottonwood regarding unscheduled or unanticipated events. Therefore, pursuant to section 215(d)(5) of the FPA and section 39.5(f) of our regulations, we direct the ERO to develop modifications to MOD-001-1 and MOD-030-2 to clarify that material changes in system conditions will trigger an update whenever practical. Finally, we clarify that these Reliability Standards shall not be used as a safe harbor to avoid other, more stringent reporting or update requirements.

Para 23 from Order 729-A:

The Commission agrees that it could be difficult in some instances to enforce a requirement that hinges upon such phrases as material changes and whenever practical. Nevertheless, we believe that such modifications would be useful to ensure timely updates of available transfer or flowgate capability values. If the ERO is unable to modify the requirements of MOD-001-1 and MOD-030-2 to incorporate such language in a manner that sets clear criteria or measures of whether an entity is in compliance with the relevant Reliability Standard or cannot otherwise identify specific changes in system conditions that require an update, the ERO must, at a minimum, include this language in its measures of compliance associated with those Reliability Standards."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: *In Drafting* Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10219 - directs the ERO to develop a modification sub-requirement R2.2 pursuant to its Reliability Standards development process to clarify the phrase adjacent and beyond Reliability Coordination areas.

Para 231

"directs the ERO to develop a modification sub-requirement R2.2 pursuant to its Reliability Standards development process to clarify the phrase adjacent and beyond Reliability Coordination areas."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: *In Drafting* Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10220 - Para 234 - the Commission agrees that a graduated time frame for reposting could be reasonable in some situations. Accordingly, the ERO should consider this suggestion when making future modifications to the Reliability Standards.

Para 234

"234.The Commission believes that, as written, the time frames established in Requirement R5 are just and reasonable because they balance the need to reliably operate the grid with the burden on transmission operators to recalculate total transfer capability even when total transfer capability does not often change. Nevertheless, the Commission agrees that a graduated time frame for reposting could be reasonable in some situations. Accordingly, the ERO should consider this suggestion when making future modifications to the Reliability Standards."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: *In Drafting* Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10221 - directs the ERO to develop a modification to MOD-028-1 pursuant to its Reliability Standards development process to address these two concerns.

Para 237

"directs the ERO to develop a modification to MOD-028-1 pursuant to its Reliability Standards development process to address these two concerns."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10222 - Para 246 - The ERO should consider Puget Sounds concerns on this issue when making future modifications to the Reliability Standards.

Para 246

"246. Puget Sounds request is reasonable, and insofar as calculating non-firm available transfer capability using counterschedules as opposed to counterflows achieves substantially equivalent results, using them will not be considered a violation. However, we do not have enough information to determine that the terms are generally interchangeable in all circumstances. The ERO should consider Puget Sounds concerns on this issue when making future modifications to the Reliability Standards.

245. Puget Sound comments that counterflows are a mandatory component of the available transfer capability formula but contends that it is common practice in the Western Interconnection to incorporate counterschedules into non-firm available transfer capability calculations, instead of counterflows as defined in the formula. Puget Sound therefore requests that the Commission clarify in the Final Rule that using counterschedules will not be considered a violation of MOD-029-1. In addition, Puget Sound asks the Commission to clarify that counterflows and counterschedules are interchangeable terms, consistent with Western Interconnection practices."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10223 - The Commission also directs the ERO to make explicit such [effective date] detail in any future version of this or any other Reliability Standard.

Para 269

"The Commission also directs the ERO to make explicit such [effective date] detail in any future version of this or any other Reliability Standard."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD

Status: In Drafting Delivery: 2016

Solution Details:

TBD

DIRECTIVE: S- Ref 10226 - directs the ERO to develop a modification to the definition of Postback to eliminate the reference to Business Practices.

Para 304

"directs the ERO to develop a modification to the definition of Postback to eliminate the reference to Business Practices."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD
Status: In Drafting Delivery: 2016
Solution Details:
TBD

DIRECTIVE: S- Ref 10227 - direct the ERO to develop a modification to the definition of Business Practices that would remove the reference to regional reliability organizations and replace it with the term Regional Entity. also direct the ERO to develop a definition

Para 305

"direct the ERO to develop a modification to the definition of Business Practices that would remove the reference to regional reliability organizations and replace it with the term Regional Entity. also direct the ERO to develop a definition of the term Regional Entity to be included in the NERC Glossary."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD
Status: In Drafting Delivery: 2016
Solution Details:
TBD

DIRECTIVE: S- Ref 10229 - direct the ERO to develop a modification to the definition of ATC Path that does not reference the Commissions regulations

Para 306

"direct the ERO to develop a modification to the definition of ATC Path that does not reference the Commissions regulations"

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD
Status: In Drafting Delivery: 2016
Solution Details:
TBD

DIRECTIVE: S- Ref 10216 - Para 200 - we encourage the ERO to consider Midwest ISOs and Entegras comments when developing other modifications to the MOD Reliability Standards pursuant to the EROs Reliability Standards development procedure.

Para 200

"200. With regard to Midwest ISOs concern, while the terms assumptions and no more limiting as used in Requirements R6 and R7 could benefit from further granularity, we find these Requirements to be sufficiently clear for purposes of compliance. Likewise, with regard to Entegras concern, we agree that transmission service providers should use data and assumptions for their available transfer capability or available flowgate capability and total transfer capability or total flowgate capability calculations that are consistent with those used in the planning of operations and system expansion. Under Requirements R6 and R7, transmission service providers and transmission operators must not overstate assumptions that are used in planning of operations. We believe these requirements are sufficiently clear as written. Nonetheless, we encourage the ERO to consider Midwest ISOs and Entegras comments when developing other modifications to the MOD Reliability Standards pursuant to the EROs Reliability Standards development procedure."

Assigned: Project 2012-05 - ATC Revisions - Order 729

TBD
Status: In Drafting Delivery: 2016
Solution Details:
TBD

Project 2012-08 Glossary Updates

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10006 - The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of transmission operator to reflect concerns of the commenters and the direction ["to include aspects unique to ISOs, RTOs and pooled resource organizations"] provided by the Commission in other sections of FERC Order 693.

Para 1895 (See also Para 1887 and Para 130-145)

"The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of transmission operator and generator operator to reflect concerns of the commenters and the direction provided by the Commission in other sections of this Final Rule. The Commission is concerned that there not be any gaps or unnecessary overlaps of responsibilities concerning any of the Requirements in the Reliability Standards that are applicable to transmission operators and generator operators."

Assigned: Project 2012-08 - Glossary Updates

To be considered in later phase.

Status: In Drafting Delivery: 2018

Solution Details:

To be considered in later phase.

DIRECTIVE: S- Ref 10005 - The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of generator operator to reflect concerns of the commenters and the direction ["to include aspects unique to ISOs, RTOs and pooled resource organizations"] provided by the Commission in other sections of FERC Order 693.

Para 1895 (See also Para 1887 and Para 130-145)

"The Commission directs the ERO to submit a modification to the glossary that enhances the definitions of transmission operator and generator operator to reflect concerns of the commenters and the direction provided by the Commission in other sections of this Final Rule. The Commission is concerned that there not be any gaps or unnecessary overlaps of responsibilities concerning any of the Requirements in the Reliability Standards that are applicable to transmission operators and generator operators."

Assigned: Project 2012-08 - Glossary Updates

To be considered in later phase.

Status: In Drafting Delivery: 2018

Solution Details:

To be considered in later phase.

DIRECTIVE: S- Ref 10004 - Include the statutory definition for Reliability Standard to the NERC Glossary.

Para 1894

"Include the statutory definition for Reliability Standard to the NERC Glossary."

Assigned: Project 2012-08 - Glossary Updates

To be considered in later phase.

Status: In Drafting Delivery: 2018

Solution Details:

To be considered in later phase.

DIRECTIVE: S- Ref 10003 - Include the statutory definition for Reliable Operation to the NERC Glossary.

Para 1894

"Include the statutory definition for Reliable Operation to the NERC Glossary."

Assigned: Project 2012-08 - Glossary Updates

To be considered in later phase.

Status: In Drafting Delivery: 2018

Solution Details:

To be considered in later phase.

DIRECTIVE: S- Ref 10002 - Include the statutory definition for Bulk Power System to the NERC Glossary.

Para 1894

"Include the statutory definition for Bulk Power System to the NERC Glossary."

Assigned: Project 2012-08 - Glossary Updates

To be considered in later phase.

Status: In Drafting Delivery: 2018

Solution Details:

To be considered in later phase.

Remaining Outstanding Directives

NERC Reliability Assessment and Performance Analysis

System Personnel Training Reliability Standards (Order 742)

DIRECTIVE: S- Ref 10784 - The Commission encourages NERC to complete its generic performance measures project.

Para 70

"70.The Commission believes that performance metrics should be developed to gauge the effectiveness of a Reliability Standard if it is feasible to do so. We are pleased that NERC is working to develop performance measures that will address reliability standards in general. Based on the comments, it appears that it may be infeasible or, at a minimum, impracticable to develop performance metrics for some individual Reliability Standards; e.g., PER-005-1. However, we find that, based on this project, NERC is already in the process of evaluating the feasibility of developing meaningful performance metrics to evaluate the effectiveness of PER-005-1. The Commission encourages NERC to complete its generic performance measures project."

Assigned: Project NERC - PA - Performance Analysis

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10292 - Develop a work plan that will facilitate ongoing validation of dynamics models and submit a compliance filing to the Commission.

Para 1221

"Develop a work plan that will facilitate ongoing validation of dynamics models and submit a compliance filing to the Commission."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10274 - Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the steady-state modeling and simulation data specified in this standard.

Para 1163

"Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the steady-state modeling and simulation data specified in this standard."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10275 - Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments.

Para 1177

"Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10279 - As we will discuss in the next section on MOD-013-1, we require the ERO to develop a Work Plan and submit a compliance filing that will facilitate ongoing collection of the dynamics system modeling and simulation data specified by the defer

Para 1177

"As we will discuss in the next section on MOD-013-1, we require the ERO to develop a Work Plan and submit a compliance filing that will facilitate ongoing collection of the dynamics system modeling and simulation data specified by the deferred MOD-013-1 Reliability Standard, which is necessary for implementation of MOD-012-0."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10299 - we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified under standards that are deferred, and believe there should be no difficulty complying with this Reliability Standard.

Para 1247

"we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified under standards that are deferred, and believe there should be no difficulty complying with this Reliability Standard."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10283 - Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the dynamics modeling and simulation data specified in this standard.

Para 1200

"Develop a work plan and submit a compliance filing that will facilitate the ongoing collection of the dynamics modeling and simulation data specified in this standard."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10288 - Require users, owners, and operators to provide the validated models to regional reliability organizations.

Para 1212

"Require users, owners, and operators to provide the validated models to regional reliability organizations."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10266 - Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments.

Para 1147

"Require users, owners, and operators to submit data to the regional entities as needed for modeling studies and assessments."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10291 - Require users, owners, and operators to provide the validated models to regional entity.

Para 1221

"Require users, owners, and operators to provide the validated models to regional entity."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10270 - The Commission directs the ERO to develop a Work Plan that will facilitate ongoing collection of the steady-state modeling and simulation data specified in MOD-011-0.

Para 1163

"1163. In response to concerns raised in MOD-010-0 about implementing MOD-010-0 without the data to be collected when MOD-011-0 is modified, we direct the ERO to develop a Work Plan that will facilitate ongoing collection of the steady-state modeling and simulation data specified in MOD-011-0."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

DIRECTIVE: S- Ref 10303 - Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred. Paragraph 1264. As an initial matter, we disagree that MOD-018-0 cannot be implemented because it is dependent on

Para 1264

"Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred. Paragraph 1264. As an initial matter, we disagree that MOD-018-0 cannot be implemented because it is dependent on various unapproved standards. As previously stated, we direct the ERO to provide a Work Plan and compliance filing regarding the collection of information specified for standards that are deferred, and believe there should be no difficulties complying with this Reliability Standard. We reiterate that ongoing collection of data is necessary to maintain system reliability, and approval of MOD-018-0 will help to achieve this goal."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

SAR has been developed, but standard development has not begun for this project. Not a drafting team issue

Status: In Drafting Delivery: Compliance filing to be submitted in 2012

Solution Details:

SAR has been developed, but standard development has not begun for this project. Not a drafting team issue

DIRECTIVE: S- Ref 10309 - The Commission directs the ERO to provide a Work Plan and compliance filing regarding collection of information specified under related standards that are deferred.

Para 1297

"As an initial matter, we disagree that MOD-021-0 cannot be implemented because it is based on MOD-016-0, and through it on various unapproved standards, which creates an implementation problem. As previously stated, we direct the ERO to provide a Work Plan and compliance filing regarding collection of information specified under related standards that are deferred, and believe there should be no difficulty complying with this Reliability Standard. We reiterate that ongoing collection of data is necessary to maintain system reliability, and approval of MOD-21-0 will help to achieve this goal. Therefore, we direct the ERO to use its authority pursuant to section 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the information required by this Reliability Standard.
"

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

SAR has been developed, but standard development has not begun for this project.

Status: In Drafting Delivery: Compliance filing to be submitted in 2012

Solution Details:

SAR has been developed, but standard development has not begun for this project.

DIRECTIVE: S- Ref 10313 - Therefore, we direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the information required by this Reliability Standard

Para 1297

"Therefore, we direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide to the Regional Entity the information required by this Reliability Standard"

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Not a drafting team issue

Status: In Drafting Delivery: Compliance filing to be submitted in 2012

Solution Details:

Not a drafting team issue

DIRECTIVE: S- Ref 10317 - Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred.

Para 1308

"The Commission will not approve or remand MOD-024-1 until the ERO submits additional information. In order to continue verifying and reporting gross and net real power generating capability needed for reliability assessment and future plans, we direct the ERO to develop a Work Plan and submit a compliance filing."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

Solution Details:

See 3-year Work Plan filed each year in the 4th Quarter.

DIRECTIVE: S- Ref 10314 - Require users, owners, and operators of the system to provide this information.

Para 1312

"The Commission neither accepts nor remands MOD-024-1 until the ERO submits additional information. Although the Commission did not propose any action with regard to MOD-024-1, it addressed above a number of concerns regarding the Reliability Standard. We therefore direct the ERO to use its authority pursuant to 39.2(d) of our regulations to require users, owners and operators to provide this information. In the interim, compliance with MOD-024-0 should continue on a voluntary basis, and the Commission considers compliance with it to be a matter of good utility practice."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.

Solution Details: The proposed revision of MOD-024 clarifies this issue by specifying the appropriate functional entities in the Applicability section. GO/GOP Not a drafting team issue

DIRECTIVE: S- Ref 10321 - Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred.

Para 1320

"Provide a work plan and compliance filing regarding the collection of information specified for standards that are deferred."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

See 3-year Work Plan filed each year in the 4th Quarter. Not a drafting team issue

Status: In Drafting Delivery: Compliance filing to be submitted in 2012

Solution Details:

See 3-year Work Plan filed each year in the 4th Quarter. Not a drafting team issue

DIRECTIVE: S- Ref 10289 - Develop a work plan that will facilitate ongoing validation of steady-state models and submit a compliance filing to the Commission.

Para 1212

"Develop a work plan that will facilitate ongoing validation of steady-state models and submit a compliance filing to the Commission."

Assigned: Project NERC - RISA - Reliability Initiatives and System Analysis

Status: The NERC System Analysis and Modeling Subcommittee (SAMS) of the Planning Committee is performing a detailed review of MOD Standards MOD-010 through MOD-015 and MOD-024 through MOD-027. A report is being prepared specifying proposed changes to that family of standards based on their own work and changes proposed by the Integration of Variable Generation Task Force (IVGTF), the Model Validation Task Force (MVTF), and the Data Coordination Subcommittee (DCS). The SAMS will provide a comprehensive SAR to initiate any proposed changes to those

*standards along with a set of marked-up requirements as a jump-start to the drafting team(s). Currently, NERC is planning to present those documents to the NERC Planning Committee for approval in March 2013.
Delivery: Compliance filing to be submitted in 2012*

NERC Standards

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10101 - Collect outage data for transmission outages of lines that cross both federal and non-federal lands, analyze it, and use the results to develop a standard that would apply to both federal and non-federal lands.

Para 732

"Collect outage data for transmission outages of lines that cross both federal and non-federal lands, analyze it, and use the results to develop a standard that would apply to both federal and non-federal lands."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Mandatory Reliability Standards for Critical Infrastructure Protection (Order 706)

DIRECTIVE: S- Ref 10577 - The Commission directs the ERO, in developing the guidance discussed above regarding the identification of critical assets, to consider the designation of various types of data as a critical asset or critical cyber asset.

Para 272

"The Commission directs the ERO, in developing the guidance discussed above regarding the identification of critical assets, to consider the designation of various types of data as a critical asset or critical cyber asset."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Because data is largely not addressed in the Versions 1, 2, or proposed Version 3 of the CIP standards, it was not appropriate to provide guidance in the document.

Status: In Drafting

DIRECTIVE: S- Ref 10578 - The Commission directs the ERO to develop guidance on the steps that would be required to apply the CIP Reliability Standards to such data and to consider whether this also covers the computer systems that produce the data.

Para 272

"The Commission directs the ERO to develop guidance on the steps that would be required to apply the CIP Reliability Standards to such data and to consider whether this also covers the computer systems that produce the data."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Because data is largely not addressed in the Versions 1, 2, or proposed Version 3 of the CIP standards, it was not appropriate to provide guidance in the document.

Status: In Drafting

DIRECTIVE: S- Ref 10468 - The Commission directs the ERO to provide additional guidance for the topics and processes that the required cyber security policy should address in the cyber security policy required pursuant to CIP-003-1

Para 355 (Related paragraph 356)

"Para 355 thru 356"

The Commission believes that responsible entities would benefit from additional guidance regarding the topics and processes to address in the cyber security policy required pursuant to CIP-003-1. While commenters support the need for guidance, many are concerned about

providing such guidance through a modification of the Reliability Standard. We are persuaded by these commenters. Accordingly, the Commission directs the ERO to provide additional guidance for the topics and processes that the required cyber security policy should address. However, we will not dictate the form of such guidance. For example, the ERO could develop a guidance document or white paper that would be referenced in the Reliability Standard. On the other hand, if it is determined in the course of the Reliability Standards development process that specific guidance is important enough to be incorporated directly into a Requirement, this option is not foreclosed. The entities remain responsible, however, to comply with the cyber security policy pursuant to CIP-003-1.

In response to ISO/RTO Council, Ontario Power and other commenters, the Commissions intent in the CIP NOPR as well as the Final Rule is not to expand the scope of the CIP Reliability Standards. Requirement R1 of CIP-003-1 requires a responsible entity to document and implement a cyber security policy that represents managements commitment and ability to secure its Critical Cyber Assets. The Requirement then states that the policy, at a minimum, must address the Requirements in CIP-002-1 through CIP-009-1. The Commission believes that there are other topics, besides those addressed in the Requirements of the CIP Reliability Standards, which are relevant to securing critical cyber assets. The Commission identified examples of such topics in the CIP NOPR. Thus, the Commission, in directing the ERO to develop guidance on additional topics relevant to securing critical cyber assets, is not expanding the scope of the CIP Reliability Standards.

"

Assigned: Project Standards Internal - For directives unrelated to specific standards

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: In Drafting

DIRECTIVE: S- Ref 10575 - The Commission directs the ERO to control and protect the data analysis to the extent necessary to ensure that sensitive information is not jeopardized by the act of submitting the report to the Commission.

Para 221

"we direct the ERO to control and protect the data analysis to the extent necessary to ensure that sensitive information is not jeopardized by the act of submitting the report to the Commission."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10515 - The Commission directs the ERO to consider, based on the content of the modified CIP-006-1, whether further guidance on defense in depth (a responsible entity must implement two or more distinct and complimentary physical access controls at a physical access point of the perimeter) should be developed in a reference document outside of the Reliability Standards.

Para 575

"The Commission also directs the ERO to consider, based on the content of the modified CIP-006-1, whether further guidance on this defense in depth topic should be developed in a reference document outside of the Reliability Standards."

Assigned: Project Standards Internal - For directives unrelated to specific standards

DIRECTIVE: S- Ref 10581 - The Commission therefore directs the ERO to provide guidance, regarding the issues and concerns that a mutual distrust posture must address in order to protect a responsible entitys control system from the outside world.

Para 412 (Related paragraphs: 408 thru 410) (Also see footnote 24 found in paragraph 24)

"The Commission therefore directs the ERO to provide guidance, regarding the issues and concerns that a mutual distrust posture must address in order to protect a responsible entitys control system from the outside world."

Assigned: Project Standards Internal - For directives unrelated to specific standards

The development of this guidance document is predicated on the availability of revised Version 4 requirements that have yet to be developed.

Status: In Drafting

Western Electricity Coordinating Council Regional Reliability Standard Regarding Automatic Time Error Correction (Order 723)

DIRECTIVE: S- Ref 10026 - direct NERC to develop in its Rules of Procedure, a methodology for organizing and managing regional definitions and terminology consistent with the principles discussed above.

Para 39

"direct NERC to develop in its Rules of Procedure, a methodology for organizing and managing regional definitions and terminology consistent with the principles discussed above."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Needs to proceed through WECC development process.

Status: In Drafting

Order Approving Technical Feasibility Exception Procedures and Ordering Compliance Filing

DIRECTIVE: S- Ref 10695 - directs NERC to provide a semi-annual, non-public report to the Commission tracking additions, modifications, and deletions to the Class-Type TFE list and describing the reasons behind the changes.

Para 28

"directs NERC to provide a semi-annual, non-public report to the Commission tracking additions, modifications, and deletions to the Class-Type TFE list and describing the reasons behind the changes."

Assigned: Project Standards Internal - For directives unrelated to specific standards

Order Approving Interpretation of Transmission Planning Reliability Standard (Order 754 - Issued 9/15/2011)

DIRECTIVE: S- Ref 10788 - The Commission directs NERC to make an informational filing within six months of the date of the issuance of Order 754 explaining whether there is a further system protection issue that needs to be addressed.

Due 3/15/2012

Para 20

"Para 20 Accordingly, consistent with the supplemental comments of the Trade Associations, we direct Commission staff to meet with NERC and its appropriate subject matter experts to explore this reliability concern, including where it can best be addressed, and identify any additional actions necessary to address the matter. Further, we direct NERC to make an informational filing within six months of the date of the issuance of this Final Rule explaining whether there is a further system protection issue that needs to be addressed and, if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.

Also see:

Para 15. The Trade Associations submitted supplemental comments, with additional comments in support filed by NERC. The Trade Associations reiterate their request that the Commission approve, without change, NERC's proposed interpretation of Reliability Standard TPL-002-0 Requirement R1.3.10. The Trade Associations also state that, based on outreach meetings with Commission staff, there may be a system protection issue that merits further exploration by technical experts. Thus, the Trade Associations suggest that the Commission take the following two actions. First, instruct Commission Reliability Staff to meet with NERC and its appropriate subject matter experts to: (a) explore Staff's concerns and identify whether there is a further system protection issue warranting additional actions, and (b) if so, define the issues scope and

assess its importance. The Trade Associations state such exchange of views among technical experts would be intended to facilitate the subject matter experts ability to recommend appropriate actions within NERC. Second, direct NERC to submit an informational filing within six months to explain its view as to whether there is a further system protection issue that needs to be addressed and if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.

Para 16. NERC supports the Trade Associations proposal to give NERC, Commission staff, and technical experts the opportunity to further examine whether there may be a potential system protection issue that needs to be addressed. NERC states that it would make an informational filing with the Commission regarding whether there is a further system protection issue that needs to be addressed and if so, what forum and process should be used to address that issue and what priority it should be accorded relative to other reliability initiatives planned by NERC.

Para 19. We agree with the Trade Associations that there may be a system protection issue that merits further exploration by technical experts. The comments received in response to the Commissions NOPR and Commission staff outreach discussions indicate that there may have been a misunderstanding that the Commissions proposed interpretation would have established a full redundancy requirement for all primary protection systems. The Commission clarifies that it did not intend to require full redundancy. Rather, the Commission believes that there is an issue concerning the study of the non-operation of non-redundant primary protection systems; e.g., the study of a single point of failure on protection systems. The Commission agrees with commenters that this issue does not have to be addressed in TPL-002-0, Requirement R1.3.10.

Assigned: Project Order 754 - Placeholder

NERC is processing two options, (1) an Interpretation Request for SC approval and (2) a Request for Data or Information to industry.

Status: In Drafting Delivery: 2012

Order Approving Interpretation of Protection System Reliability Standard PRC-005-1 (Order No. 758 - Issued 2/3/2012)

DIRECTIVE: S- Ref 10847 - The Commission directs NERC to file a schedule/timeline for the development of technical documents, and associated reliability standard modifications, which 1) describe the devices and functions (to include sudden pressure relays which trip for fault conditions) that are designed to sense or take action against any abnormal system condition that will affect reliable operation of the Bulk-Power System, and 2) propose minimum maintenance activities for such devices and maximum maintenance intervals, including the technical basis for each.

Due 4/13/2012

Para 15

"The Commission accepts NERCs proposal, and directs NERC to file, within sixty days of publication of this Final Rule, a schedule for informational purposes regarding the development of the technical documents referenced above, including the identification of devices that are designed to sense or take action against any abnormal system condition that will affect reliable operation. NERC shall include in the informational filing a schedule for the development of the changes to the standard that NERC stated it would propose as a result of the above-referenced documents. NERC should update its schedule when it files its annual work plan.

Para 13 and 14

In their comments NERC, EEI, Joint Cities, Manitoba, NRECA, ITC, MidAmerican, and PSEG expressed varying levels of disagreement with the NOPRs proposed directive. The disagreements are based on a concern that the proposed directive will create an increase in scope that will capture many items not used in BES protection. NERC is concerned the scope of this proposed directive is so broad that any device that is installed on the Bulk-Power System to monitor

conditions in any fashion may be included. NERC states that many of these devices are advisory in nature and should not be reflected within NERC Reliability Standards if they do not serve a necessary reliability purpose. NERC does not believe it is necessary for the Commission to issue a directive to address this issue. Instead, NERC proposes to develop, either independently or in association with other technical organizations such as IEEE, one or more technical documents which:

1. describe the devices and functions (to include sudden pressure relays which trip for fault conditions) that should address FERCs concern; and
2. propose minimum maintenance activities for such devices and maximum maintenance intervals, including the technical basis for each.

NERC states that these technical documents will address those protective relays that are necessary for the reliable operation of the Bulk-Power System and will allow for differentiation between protective relays that detect faults from other devices that monitor the health of the individual equipment and are advisory in nature (e.g., oil temperature). Following development of the above-referenced document(s), NERC states that it will propose a new or revised standard (e.g. PRC-005) using the NERC Reliability Standards development process to include maintenance of such devices, including establishment of minimum maintenance activities and maximum maintenance intervals. Accordingly, NERC proposes to add this issue to the Reliability Standards issues database for inclusion in the list of issues to address the next time the PRC-005 standard is revised.

"

Not assigned to any project.

DIRECTIVE: S- Ref 10848 - The Commission directs NERC to include maintenance and testing of reclosing relays that can affect the reliable operation of the Bulk-Power System within Project 2007-17 or make an informational filing that provides a schedule for how NERC will address such issues.

Due 7/30/2012

Para 27 (also see paragraphs 16-26)

"We note that the original project to revise Reliability Standard PRC-005 failed a recirculation ballot in July of 2011. The project was subsequently reinitiated to continue the efforts to develop Reliability Standard PRC-005-2. Given that the project to draft proposed revisions to Reliability Standard PRC-005-1 continues in this reinitiated effort, and the importance of maintaining and testing reclosing relays, we direct NERC to include maintenance and testing of reclosing relays that can affect the reliable operation of the Bulk-Power System, as discussed above, within these reinitiated efforts to revise Reliability Standard PRC-005. (Footnote: On December 13, 2011, NERC submitted its Standards Development Plan for 2012-2014. NERC estimates that Project 2007-17 will be completed in the second quarter of 2012. By July 30, 2012, NERC should submit to the Commission either the completed project which addresses the remaining issues consistent with this order, or an informational filing that provides a schedule for how NERC will address such issues in the Project 2007-17 reinitiated efforts.)"

Not assigned to any project.

NERC Regional Standards Development

Western Electricity Coordinating Council Regional Reliability Standard Regarding Automatic Time Error Correction (Order 723)

DIRECTIVE: S- Ref 10025 - directs WECC to develop a modification to the regional Reliability Standard consistent with CCs and NERCs explanation that the limit set forth in Requirement 2 of 24 hours per calendar quarter is an accumulated total for the period, resulti

Para 34

"directs WECC to develop a modification to the regional Reliability Standard consistent with CCs and NERCs explanation that the limit set forth in Requirement 2 of 24 hours per calendar quarter is an accumulated total for the period, resulting from either a singular event or a cumulative time limit from a number of events."

Assigned: Project Regional - For directives assigned to regions

Needs to proceed through WECC development process.

Status: In Drafting

DIRECTIVE: S- Ref 10024 - directs WECC to develop revisions to the provision so that a balancing authority will know with specificity the circumstances that trigger the actions required by Requirement R1.2

Para 30

"directs WECC to develop revisions to the provision so that a balancing authority will know with specificity the circumstances that trigger the actions required by Requirement R1.2"

Assigned: Project Regional - For directives assigned to regions

Needs to proceed through WECC development process.

Status: In Drafting

Final Rule Approving Planning Resource Adequacy Assessment Standard BAL-502-RFC-02 (Order 747)

DIRECTIVE: S- Ref 10752 - The Commission directs RFC to add time horizons to the two main requirements when RFC reviews BAL-502-RFC-02 at the scheduled five-year review.

Para 53

"Para 53 The Commission agrees with the Midwest ISO that time horizons are a factor in NERCs determination of a penalty for a violation and acknowledges that RFC is modifying its standards development process such that it will include time horizons as an element in its regional Reliability Standards template. Accordingly, as proposed in the NOPR, the Commission directs RFC to add time horizons to the two main requirements when RFC reviews BAL-502-RFC-02 at the scheduled five-year review."

Assigned: Project Regional - For directives assigned to regions

DIRECTIVE: S- Ref 10753 - Consider, at the time of its five-year review, whether to add a requirement to BAL-502-RFC-02 that would require Planning Coordinators to identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning reserves determined from the resource adequacy analysis.

Para 65

"Para 65 The Commission accepts RFCs commitment to consider, at the time of its five-year review, whether to add a requirement to BAL-502-RFC-02 that would require Planning Coordinators to identify any gap between the needed amount of planning reserves defined in Requirement R1.1 and the planning reserves determined from the resource adequacy analysis."

Assigned: Project Regional - For directives assigned to regions

Final Rule on Version One Regional Reliability Standards for Facilities Design, Connections, and Maintenance; Protection and Control; and Voltage and Reactive (Order 751)

DIRECTIVE: S- Ref 10764 - The Commission encourages WECC to consider the comments of Mariner in during the development of VAR-002-WECC-1 in its Project WECC-0046.

Para 67 and 63

"The Commission encourages WECC to consider the comments of Mariner in during the development of VAR-002-WECC-1 in its Project WECC-0046."

Assigned: Project Regional - For directives assigned to regions

DIRECTIVE: S- Ref 10756 - The Commission directs NERC to remove the WECC regional definition of Disturbance from the NERC Glossary to ensure consistency between the regional and NERC defined terms.

Para 13

"Para13In addition, we direct WECC to address a concern pertaining to the applicability of FAC-501-WECC-1 and PRC-004-WECC-1, which reference tables of major transmission paths and remedial action schemes posted on the WECC website. We also adopt our NOPR to direct NERC to remove the WECC regional definition of Disturbance from the NERC Glossary to ensure consistency between the regional and NERC defined terms."

Assigned: Project Regional - For directives assigned to regions

NERC Standing Committees

Mandatory Reliability Standards for the Bulk-Power System (Order 693)

DIRECTIVE: S- Ref 10157 - Para 992. In addressing MISO-PJMs claim that the ERO should modify IRO-006-3 and the MISO-PJM regional difference to require netting generation-to-load impacts to recognize counterflow, we will let the ERO Operating Subcommittee address the

Para 992

"992.In addressing MISO-PJMs claim that the ERO should modify IRO-006-3 and the MISO-PJM regional difference to require netting generation-to-load impacts to recognize counterflow, we will let the ERO Operating Subcommittee address the technical merits of netting flow impacts in the interchange distribution calculator."

Assigned: Project OC PC SubC - For directives assigned to the Standing Committees

Final Rule Approving Interconnection Reliability Operating Limits Standards (Order 748)

DIRECTIVE: S- Ref 10755 - The Reliability Coordinator Working Group should further study the issue of requiring both the reliability coordinator and transmission operator to develop action plans for every SOL may add confusion to the process and determine if there is a need for reliability coordinators to have action plans developed and implemented with respect to certain grid-impactive SOLs.

Para 55 and 52

"Para 55The Commission agrees with NERC that requiring both the reliability coordinator and transmission operator to develop action plans for every SOL may add confusion to the process. As a result, the Commission approves IRO-009-1, without modification. However, the Reliability Coordinator Working Group should further study this issue and determine if there is a need for reliability coordinators to have action plans developed and implemented with respect to certain grid-impactive SOLs.

Para 52 In the NOPR, the Commission sought comment on whether reliability coordinators should have action plans developed and implemented with respect to other SOLs apart from IROs and if so, which SOLs.

"

Assigned: Project OC PC SubC - For directives assigned to the Standing Committees

DIRECTIVE: S- Ref 10754 - The Commission requests that the NERC Reliability Coordinators Working Group engage the issues raised in this proceeding with NERC stakeholders, including the NERC Planning and Operating committees, to determine whether a need exists to further refine the delineation of responsibilities between the reliability coordinator and transmission operator for analyzing a class of grid-impactive SOLs..

Para 44

"Para 44 Because the study and monitoring of SOLs and IROLs is an issue at the very core of Bulk-Power System reliability, the Commission agrees with EEI that the NERC Reliability Coordinators Working Group should engage the issues raised in this proceeding with NERC stakeholders, including the NERC Planning and Operating committees, to determine whether a need exists to further refine the delineation of responsibilities between the reliability coordinator and transmission operator for analyzing a class of grid-impactive SOLs. Depending on the results of that review, we further encourage NERC, working through its standard development process, to develop appropriate modifications to these and any other related Reliability Standards as necessary."

Assigned: Project OC PC SubC - For directives assigned to the Standing Committees

Miscellaneous

Mandatory Reliability Standards for Critical Infrastructure Protection (Order 706)

DIRECTIVE: S- Ref 10820 - The Commission believe that NERC should register demand side aggregators if the loss of their load shedding capability, for reasons such as a cyber incident, would affect the reliability or operability of the Bulk-Power System.

Para 051

"Likewise, we believe that NERC should register demand side aggregators if the loss of their load shedding capability, for reasons such as a cyber incident, would affect the reliability or operability of the Bulk-Power System. EEI and ISO/RTO Council concur that the need for the registration of demand side aggregators may arise, but state that it is not clear whether aggregators fit any of the current registration categories defined by NERC. We agree with EEI and ISO/RTO Council that NERC should consider whether there is a current need to register demand side aggregators and, if so, to address any related issues and develop criteria for their registration."

Assigned: Project Compliance Internal - For directives assigned to Compliance

System Restoration (Order 749)

DIRECTIVE: S- Ref 10785 - Once the Standard is effective, if industry determines that ambiguity with the term arises, it would be appropriate for NERC to consider its proposal to develop a guideline to aid entities in their compliance obligations.

Para 24 and 18

"Paragraph 24 - Both EEI and APPA recognize potential benefit in the development of further guidance as to the term unique tasks, and BPA is uncertain as to the meaning of the term and consequently unsure as to how to demonstrate compliance with its training obligation. NERC, in its comments about the term, states that it could promote the development of a guideline to aid registered entities in complying with Requirement R11. The Commission notes that this Reliability Standard will not become effective for at least 24 months, during which time ambiguities in language or differences of opinion among affected entities may be resolved in practical ways. Once the Standard is effective, if industry determines that ambiguity with the term arises, it would be appropriate for NERC to consider its proposal to develop a guideline to aid entities in their compliance obligations.

Note: Paragraph 24 is referring to Requirement R11 of EOP-005-2 that requires a minimum of two hours of system restoration training be provided every two years to field switching personnel performing unique tasks associated with the transmission operators restoration plan (i.e., Vagueness of Term Unique Tasks).

Paragraph 18 - Requirement R11 of EOP-005-2 requires that a minimum of two hours of system restoration training be provided every two years to field switching personnel performing unique tasks associated with the transmission operators restoration plan. In the NOPR, the Commission expressed concern that the applicable entities may not understand what the term unique tasks means. We requested comment on what is intended by that term and on whether guidance should be provided to the transmission operators, transmission owners, and distribution providers who are responsible for providing training. In addition, the NOPR sought comment as to whether the unique tasks should be identified in each transmission operators restoration plan."

Assigned: Project EOP-005 - Five Year Review

ERO Interpretations of Specific Requirements of BAL-003-0 and VAR- 001-1 Reliability Standards (Issued 5/21/2009)

DIRECTIVE: S- Ref 10780 - The Commission remanded to the ERO the proposed interpretation of VAR-001-1, Requirement R4 and directs the ERO to revise the interpretation consistent with the Commissions discussion below

Para 47

"The Commission remands to the ERO the proposed interpretation of VAR-001-1, Requirement R4 and directs the ERO to revise the interpretation consistent with the Commissions discussion below. [Note: see the Order Issued on May 21, 2009 for the complete details.]"

Assigned: Project VAR-001-1 – Interpretation

FERC - Facilities Design, Connections and Maintenance Reliability Standards (Order 705)

DIRECTIVE: S- Ref 10601 - direct that any revised TPL Reliability Standards must reflect consistency in the lists of contingencies between the two

Para 049 and Footnote #38

"Para 49

Because the TPL series of Reliability Standards sets the foundation for the types of contingencies to be considered to meet requirements in the FAC Reliability Standards, and the FAC Reliability Standards are intended to be consistent with the set of contingencies identified in the TPL Reliability Standards, the Commission would be concerned if the TPL Reliability Standards use one set of contingencies to plan the system, while the FAC Reliability Standards generate another set to calculate SOLs in the planning horizon. As NERC acknowledges, as the TPL series of Reliability Standards is modified, conforming changes to the corresponding lists of contingencies in the FAC or MOD series of Reliability Standards are expected to be necessary to ensure consistency in the list of contingencies. Similarly, the Commission believes that as FAC or MOD Reliability Standards are updated, the TPL series of Reliability Standards must be updated to remain consistent. Therefore, we direct that any revised TPL Reliability Standards must reflect consistency in the lists of contingencies between the two Reliability Standards. Should NERC file such revised TPL Reliability Standards, the Commission will review the resulting Reliability Standards for compliance with our directives in Order Nos. 890 and 693 concerning consistency for SOLs, transfer capability and TTC.

Footnote 38

Similar consistency issues may arise with the transmission operating and planning (TOP) Reliability Standards because those Reliability Standards implement the SOLs and IROLs determined in the FAC Reliability Standards.

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Assigned: Project 2006-02 - Assess Transmission Future Needs

TBD

Status: Filed Delivery: 2011

Solution Details:

TBD