# NERC

RELIABILITY CORPORATION

# Agenda

# **Standards Oversight and Technology**

## Committee

February 11, 2015 | 10:00 a.m. - 11:00 a.m. Pacific

The Westin San Diego 400 W Broadway San Diego, CA 92101

Call to Order

Introductions and Chair's Remarks

NERC Antitrust Compliance Guidelines—Public Announcement

#### Agenda Items

- 1. Minutes\* Approve
  - a. November 12, 2014 Meeting
- 2. Standards Oversight and Technology Committee Self-Assessment Results\* Review
- 3. ERO Enterprise IT Application Strategy\* Update
- 4. Standards Committee Elections\* Review
- 5. Reliability Standards Quarterly Status Report (including Standards Committee Report)\* -Information

#### 6. Adjournment

\*Background materials included.



# **Antitrust Compliance Guidelines**

#### I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

#### **II. Prohibited Activities**

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

• Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

#### **III.** Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.

Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

# DRAFT Minutes Standards Oversight and Technology Committee

November 12, 2014 | 8:00-9:30 a.m. Eastern

The Westin Buckhead Atlanta 3391 Peachtree Road NE Atlanta GA 30326

#### Call to Order and Chair's Remarks

Mr. Peterson, Chair, convened a duly noticed open meeting of the Standards Oversight and Technology Committee (the "Committee") of the North American Electric Reliability Corporation ("NERC") on November 12, 2014 at 8:15 a.m. Eastern, and a quorum was declared present. The agenda is attached as **Exhibit A**.

Committee Members:	Board of Trustees Members:
Kenneth G. Peterson, Chair	Janice B. Case
Paul F. Barber	Gerald W. Cauley, President and Chief Executive Officer
Frederick W. Gorbet	Jan Schori
David Goulding	Roy Thilly
Douglas Jaeger	
Bruce A. Scherr	

#### **NERC Staff:**

Valerie Agnew, Director of Standards

Charles A. Berardesco, Senior Vice President, General Counsel, and Corporate Secretary Thomas Burgess, Vice President and Director of Reliability Assessment and Performance Analysis Holly A. Hawkins, Associate General Counsel

Stanley M. Hoptroff, Vice President and Chief Technology Officer

Mark G. Lauby, Senior Vice President and Chief Reliability Officer

Janet Sena, Senior Vice President and Director of Policy and External Affairs

Brady Walker, Associate Counsel

Michael Walker, Senior Vice President, Chief Financial and Administrative Officer, and Corporate Treasurer

#### Other:

John A. Anderson, Chair, Member Representatives Committee Sylvain Clermont, Vice-Chair, Member Representatives Committee Mr. Brian Murphy, Chair, Standards Committee Agenda Item 1.a



Mr. Peterson directed the participants' attention to the NERC Antitrust Compliance Guidelines included in the agenda, and stated that any additional questions regarding these guidelines may be directed to himself or to Mr. Berardesco.

#### Minutes

Upon motion duly made and seconded, the August 13, 2014, meeting minutes were approved in the form as presented to the Committee at the meeting.

#### **ERO Enterprise IT Application Strategy**

Mr. Hoptroff provided an update on the Enterprise IT Applications Strategy. He outlined the recently developed guiding principles and priorities for all IT projects and noted the use of the new "gated process" designed to allow for a collaborative decision-making process as to which IT projects represent priorities for the ERO Enterprise. Mr. Hoptroff highlighted the importance of a process that recognizes the differing business needs of NERC and the Regional Entities, and that coordination of these needs is necessary to determine the most effective and efficient solution for the ERO Enterprise.

He provided an update on the ERO IT applications currently in use, including the Bulk Electric System Notification Exception Application, the ERO application development process with respect to emerging applications such as the Standards Balloting application, the newly acquired Microsoft host platform, the RADS application, and the Events Analysis application.

Mr. Hoptroff outlines the upcoming plans for improvements and projects that will be completed by the end of 2014 or that are expected to continue into 2015, recognizing that each project had been properly vetted through the Technology Leadership Team and the ERO-EMG.

#### **Projects with Deadlines**

Ms. Agnew provided an update on the development of NERC Reliability Standards with upcoming filing deadlines. She referenced both projects with deadlines to which NERC had committed itself and to projects that have regulatory deadlines.

#### **Reliability Standards Development Plan and Enhanced Periodic Review Template**

Ms. Agnew summarized the Reliability Standards Development Plan (RSDP) and stated that it accounts for the majority of the remaining work necessary to bring the NERC Reliability Standards to "steady-state" by addressing outstanding FERC directives, Paragraph 81 and the Independent Experts Review Panel (IERP) recommendations for retirement, and considering other initiatives such as results-based standards. She noted that the 2015-2017 RSDP which identifies only four new projects, as opposed to the thirty contained in the 2014-2016 RSDP.

Ms. Agnew recognized the support of the Standards Committee in the creation of the Enhanced Periodic Review Plan and the Enhanced Periodic Review Template, a program and associated template designed to provide for greater industry involvement in evaluating standards' content and quality.

## NERC



#### **Standards Committee Elections**

Ms. Agnew reported that the Standards Committee has completed the Segment elections for 2015, and noted the resignation of Scott Miller as Vice Chair of the Standards Committee. She stated that a special election for a new Vice Chair would be held on December 9, 2014. Ms. Agnew and Mr. Murphy commended the efforts of Mr. Miller as Vice Chair of the Standards Committee.

# Reliability Standards Quarterly Status Report (including Standards Committee Report)

Mr. Peterson referenced the Reliability Standards Quarterly Status Report which (i) outlined Reliability Standards that will be presented to the Board for approval, (ii) updated the number of outstanding FERC directives, and (iii) provided an update on projects slated for development as outlined in the 2014-2016 Reliability Standards Development Plan, and the Standards Committee Report, both of which had been included with the advance Committee meeting materials.

#### Adjournment

There being no further business, and upon motion duly made and seconded, the meeting was adjourned at 9:20 a.m. Eastern.

Submitted by,

IGR

Charles A. Berardesco Corporate Secretary



Agenda Item 2

# Summary of 2014 Board of Trustees Standards Oversight and Technology Committee Survey





- NERC engaged TalentQuest to conduct its annual Board of Trustees Standards Oversight and Technology Committee survey through an online methodology
- The Standards Oversight and Technology (SOTC) Committee survey was administered from November 12 to December 19, 2014, to a total of 6 Committee members
- 6 Committee members responded to the survey
  - 100% response rate



- Respondents were asked to rate items on a 1 to 3 point scale to indicate their evaluation for each rated item
  - 1= Below Expectations ("performance area with opportunity for improvement")
  - 2= Meets Expectations ("meets required standard of performance")
  - 3 = Above Expectations ("exceeds the required standard of performance")
- For any item rated "1" (Below Expectations) or "No", mandatory comments were required to explain the rationale for the rating or selection



- The overall Standards Oversight and Technology Committee survey average was 2.32, with item averages ranging from 2.00 to 2.67
- Given the lowest item averages are 2.0, the Standards Oversight and Technology Committee is seen to be operating at expectations or higher
- Lowest Rated Item (2.0):
  - The Committee effectively reviews periodically NERC's status with the American National Standards Institute.

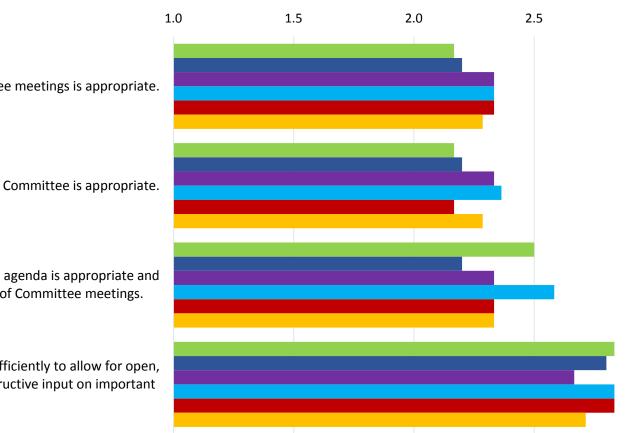


- Review of cross-committee survey items finds the Standards Oversight and Technology Committee rated all items at a 2.33, except the following:
  - The Committee Chair manages meetings efficiently to allow for open, equal, and sufficient discussion and constructive input on important issues. (2.67)



# **Committee Comparison**

3.0



The number of Committee meetings is appropriate.

The size of the Committee is appropriate.

The information provided in support of the agenda is appropriate and available in a timely manner in advance of Committee meetings.

The Committee Chair manages meetings efficiently to allow for open, equal, and sufficient discussion and constructive input on important issues.

- Finance and Audit Committee
- Standards Oversight and Technology Committee
- Compliance Committee

- Corporate Governance and Human Resources Committee
- Nominating Committee
- Enterprise-Wide Risk Committee

#### **RELIABILITY | ACCOUNTABILITY**

Agenda Item 3 Standards Oversight and Technology Committee Meeting February 11, 2015

#### **ERO Enterprise IT Application Strategy Update**

### Action

Information

#### Background

In 2014, NERC and the Regional Entities reached a consensus on prioritizing the development and implementation of software applications supporting common NERC and Regional Entity operations including data collection, management, and analysis. This strategy (ERO Enterprise IT Strategy) and associated application development, is a multi-year initiative that will improve productivity and visibility to data while reducing the complexity of managing multiple applications. Detailed information regarding the ERO Enterprise IT Strategy, applications and budget was included in NERC's 2015 business plan and budget and will be included in NERC's 2016 business plan and budget.

The Standards Oversight and Technology Committee (SOTC) subgroup, comprised of three SOTC members, continues to provide additional oversight to this effort, as well as deliver feedback to the SOTC on the development and execution of the ERO Enterprise IT Strategy. During the November 2014 SOTC meeting, NERC Management provided an update on the ERO Enterprise IT Strategy, which included an update on six ERO IT Guiding Principles that reflect a bias for proven off-the-shelf solutions and the deployment of a consistent and disciplined decision-making process. Updates were also provided on six priority ERO applications including BES Notifications and Exceptions Application, Standards Balloting Applications, Reliability Assessment Data, Events Analysis, and Compliance Tools Assessment.

A presentation will be made at the February 2015 meeting providing progress of the ERO Enterprise IT Strategy and its guiding principles, updates on the development of key applications, as well as an update on ES-ISAC and the Cybersecurity Risk Information Sharing Program. An overview of future priorities for 2015 will also be addressed.

Agenda Item 4 Standards Oversight and Technology Committee Meeting February 11, 2015

#### **Standards Committee Elections**

Action Information

#### Background

At the request of his company to dedicate more time to internal matters, Mr. Scott Miller, Manager of Regulatory Policy from MEAG, recently resigned as the SC's Vice Chair. The SC held a special election on December 9, 2014 pursuant to the process outlines in the SC's Charter, and Mr. Fred Plett, Utility Analyst for the Massachusetts Attorney General, was elected to fulfill the remainder of Mr. Miller's term as Vice Chair which December 31, 2015.

Agenda Item 5 Standards Oversight and Technology Committee Meeting February 11, 2015

#### **Reliability Standards Quarterly Status Report**

#### Action

Information

#### Background

Attached is the Reliability Standards Quarterly Status Report. Highlights include:

- 2015-2017 Reliability Standard Development Plan (RSDP)
  - Discusses the RSDP for standards' development and conducting Enhanced Periodic Reviews in 2015-2017.
- Standards Development Forecast
  - Provides a forecast of the standards anticipated for completion and submission to the NERC Board of Trustees (Board) for adoption through February 2016.
- Paragraph 81 Phase 2 and Independent Experts Review Panel Recommendations -Quarterly Update
  - Provides an update on the status of the Paragraph 81 and Independent Experts' Review Panel recommendations for standard requirement retirement and an overview of the total number of requirements in effect.
- Regulatory Directives Update
  - Provides a report on the progress made in addressing outstanding FERC directives and guidance.
- Standards Committee (SC) Report
  - SC overview of key activities and progress from the previous quarter, including:
    - The initiation of projects listed in the 2015-2017 RSDP, and
    - New Standards Committee Members



# **Reliability Standards**

# Standards Oversight and Technology Quarterly Report

## February 11, 2015

## **RELIABILITY | ACCOUNTABILITY**



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## Preface

The North American Electric Reliability Corporation (NERC) is a not-for-profit international regulatory authority whose mission is to ensure the reliability of the bulk power system (BPS) in North America. NERC develops and enforces Reliability Standards; annually assesses seasonal and long-term reliability; monitors the BPS through system awareness; and educates, trains, and certifies industry personnel. NERC's area of responsibility spans the continental United States, Canada, and the northern portion of Baja California, Mexico. NERC is the electric reliability organization (ERO) for North America, subject to oversight by the Federal Energy Regulatory Commission (FERC) and governmental authorities in Canada. NERC's jurisdiction includes users, owners, and operators of the BPS, which serves more than 334 million people.

The North American BPS is divided into the eight Regional Entity (RE) boundaries, as shown in the map and corresponding table below.



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

## 2015-2017 Reliability Standards Development Plan

The 2015-2017 RSDP, developed by NERC staff in conjunction with members of the Standards Committee (SC), is a continuation of the approach set forth in the 2013-2015 RSDP and 2014-2016 RSDP. It outlines a plan to complete the majority of the work necessary to bring the NERC Reliability Standards to "steady-state" by addressing FERC directives, Paragraph 81 (P81) and the Independent Experts' Review Panel (IERP) recommendations for retirement and quality improvement, and considering other initiatives such as results-based standards. This RSDP was adopted by the NERC Board of Trustees (Board) at its November meeting and was filed with FERC on December 31, 2014.

Completion of the work in this plan provides an opportunity for a measured, in-depth review of the NERC Reliability Standards, which will be guided by the Enhanced Periodic Review Template. This template will provide a consistent basis from which to develop metrics that measure the quality and content of the NERC Reliability Standards. The template fulfills the February 6, 2014 request from NERC's Board. It was developed in collaboration with NERC's management and the leadership of the Standards during the years 2015-2017. The template was endorsed in concept by the Corporate Governance and Human Resources Board Committee on March 20, 2014, and in final form by the SC on September 30, 2014. It was presented to the NERC Board for information at the November 2014 meeting.

A plan to execute the Enhanced Periodic Reviews of the NERC Reliability Standards will be developed during the first half of 2015.

## Standards Development Forecast (Continent-wide)

### **Board Forecast for Standard Projects in Active Development**

#### May 2015

- Project 2010-14.1: Phase 1 of Balancing Authority Reliability-based Controls: Reserves (BAL-002)
- Project 2014-01: Standards Applicability for Dispersed Generation Resources (medium priority standard PRC-005)
- Project 2008-02: Phase 2 of Undervoltage Load Shedding (UVLS): Misoperations
- Project 2010-14.2.1: Implementation of the BAL-005 and BAL-006 Periodic Review Recommendations
- Project 2014-04: Physical Security Directives

#### August 2015

- Project 2010-14.2.2: Periodic Review of BAL Standards (BAL-004)
- Project 2007-06: System Protection Coordination (PRC-027-1)
- Project 2015-02: Periodic Review of EOP Standards (EOP-004, EOP-005, EOP-006, and EOP-008)
- Project 2012-09: Periodic Review of IRO Standards

#### November 2015

- Project 2015-03: Periodic Review of System Operating Limit Standards (FAC-010, FAC-011, and FAC-014)
- Project 2015-04: Alignment of NERC Glossary of Terms used in NERC Reliability Standards and the Definitions Used in the Rules of Procedure
- Project 2007-06.2: System Protection Coordination (PRC-001)

#### February 2016

- Project 2009-02: Reliability Monitoring and Analysis Capabilities<sup>1</sup>
- Project 2010-05.2: Phase 2 of Protection System Misoperations: SPS/RAS

<sup>&</sup>lt;sup>1</sup>Project may receive a new project number. The TOP/IRO Revisions drafting team did not incorporate this project into 2014-03, so it has been re-initiated as a separate project.

### **Projects with Regulatory Deadlines**

Two projects are subject to regulatory deadlines or commitments are presented to the Board for adoption at this meeting, completing the projects identified at the November Board Meeting. Physical Security has been added as a project with a regulatory deadline, as indicated in Table 1 below:

Project	Regulatory Deadline
Project 2014-03 TOP/IRO Revisions	January 31, 2015
Project 2014-02 CIP Version 5 Revisions	February 3, 2015
Project 2014-04 Physical Security	June 27, 2015

Table 1: Projects with Regulatory Deadlines

#### **Progress to Date**

In Table 2 a summary of the progress that has been made in addressing the P81 Phase 2 and the IERP recommendations for retirement is provided. A spreadsheet outlining the specific requirements, the projects that addressed them and the resolution has been posted to the standards page on the <u>NERC website</u>.

#### Background

On November 21, 2013, FERC issued Order No. 788 approving the retirement of the requirements proposed for retirement under Phase 1 of the P81 project. At the conclusion of Phase 1, 217 requirements remained for consideration in Phase 2 of the project. In addition, the IERP recommended a total of 257 requirements for retirement. Some requirements were included in both sets of recommendations, and eliminating these duplications resulted in a total of 281 requirements proposed for retirement. Of these, all except eight candidates have either been addressed or are in the process of being addressed in either a current project or five-year review.

	Current Status	P81 and IERP Recommendations for Retirement
Total*		281
Addressed	238	
In current projects	35	
Not assigned	8	

\*Unique requirements

Table 2: Progress Addressing P81 and IERP Recommendations for Retirement

There are three possible ways in which the requirements proposed for retirement (above) may have been addressed: 1) The standard drafting teams may have retired the requirement in its entirety, 2) the requirement may have been modified, or 3) the requirement may have been retained in its entirety. The analysis is qualitative and was conducted with a conservative approach; thus a categorization of "modified" indicates that a portion, but not all, of the requirement, sub-requirement or part was retired. If any action in the original requirement was retained, the requirement received a categorization of "modified." Table 3 provides a summary of the 238 requirements that have been addressed to date:

Resolution	Number	Percent
Retired <sup>2</sup>	110	46%
Modified	103	43%
Retained	25	11%
	238	

Table 3: Resolutions for P81 and IERP Recommendations for Retirement

<sup>&</sup>lt;sup>2</sup>Twelve of these were retired in the P81 Phase 1, but were included on the list as they were recommended for retirement by the Independent Expert Review Panel.

#### **Pre-2013 Directives Filed**

Throughout 2013 and 2014, NERC reported on the progress of FERC directives and guidances (together, "directives") that were issued prior to 2013<sup>3</sup> and, for consistency, this report continues to provide a status for those directives. The below provides the directives that were filed in 2014. At 2014 year-end, there were 27 directives remaining from the 191 pre-2013 directives.

- Q1
  - Project 2007-17.2 PRC-005-3 Reclosing Relays (1 directive)
  - Project 2008-12 Coordinate Interchange Standards (6 directives)
  - Project 2010-01 PER-005-2 Operations Personnel Training (6 directives)
  - Project 2010-03 MOD-032 and MOD-033 Modeling Data (15 directives)
  - Project 2012-05 ATC Revisions (13 directives)
- Q2
  - Project 2006-06 Reliability Coordination (10 directives)
  - Project 2007-02 Operating Personnel Communications Protocols (1 directive)
  - Project 2007-17.1 PRC-005-2 VSL modification (1 directive)
  - Project 2010-04 Demand Data (14 directives)
  - Project 2013-04 Voltage and Reactive Control (6 directives)
  - Project 2014-02 CIP V5 VSL and VRF Revisions (7 directives)
  - Project 2014-04 Physical Security (1 directive)
- Q3
  - VSL/VRF filing (MOD, BAL and TPL) (4 directives)
  - Project 2010-02 Connecting new facilities to the grid (2 directives)
  - Project 2010-05.1 Phase 1 of Protection Systems: Misoperations PRC-004-3 (2 directives)
- Q4
  - Project 2008-02 Underfrequency Load Shedding (1 directive)
  - Project 2010-13.3 Phase 3 of Relay Loadability: Stable Power Swings (3 directives)
  - Project 2007-11 Disturbance Monitoring (1 directive)
  - Project 2009-03 Emergency Operations (7 directives)

<sup>&</sup>lt;sup>3</sup>Pre-2013 directives include FERC directives that were issued prior to November 20, 2012.

## Post-2012 Directives Issued

FERC issued 58 additional directives between November 20, 2012, and December 31, 2014, 49 of which are related to modification of standards. NERC has begun to address these directives and has filed proposed standards with FERC that address 24 of the additional directives. The directives that FERC issued include:<sup>4</sup>

- Three directives in two orders relating to Physical Security<sup>5</sup>
- Four directives and thirteen guidances in FERC Order No. 779 regarding Stage 1 and Stage 2 of the Geomagnetic Disturbance Mitigation Project.<sup>6</sup>
- Five directives in FERC Order No. 773 related to the definition of the Bulk Electric System.<sup>7</sup>
- Six directives in FERC Order No. 777 approving FAC-003-2.8
- Two directives in FERC Order No. 772 approving the SERC Regional Standard PRC-006-SERC-01.<sup>9</sup>
- Thirteen directives in FERC Order No. 791 regarding CIP Version 5.<sup>10</sup>
- Four directives in FERC Order No. 786 approving TPL-001-4.<sup>11</sup>
- Six directives in FERC Order No. 794 approving BAL-001-3.<sup>12</sup>
- Two directives in FERC Order No. 793 approving PRC-005-2.<sup>13</sup>
- One directive in FERC Order No. 796 approving MOD-025, MOD-026, MOD-027, PRC-019 and PRC-024.<sup>14</sup>

Of the 49 directives related to further standards development, 24 directives have been addressed through filings with FERC identified below:

- CIP-014-1: One directive<sup>15</sup>
- Bulk Electric System: Four directives<sup>16</sup>
- FAC-003-2: Three directives<sup>17</sup>

<sup>6</sup>Reliability Standards for Geomagnetic Disturbances, Order No. 779, 143 FERC ¶ 61,147 (2013).

<sup>&</sup>lt;sup>4</sup>NERC conducts a verification for the number of directives issued in each order before including those directives for reporting purposes. Any directives contained in FERC orders issued after December 31, 2014 are not included on this list.

<sup>&</sup>lt;sup>5</sup>One directive in 146 FERC ¶ 61,166 (2014) regarding CIP-014, and two directives in FERC Order No. 802 (2014) regarding CIP-014.

<sup>&</sup>lt;sup>7</sup>These directives were issued in *Revisions to Electric Reliability Organization Definition of Bulk Electric System and Rules of Procedure*, 141 FERC ¶ 61,236 (Dec. 20, 2012), after the 2012 year-end number of directives was established. One of the directives was resolved in the April 4, 2013 NERC Compliance Filing.

<sup>&</sup>lt;sup>8</sup>Revisions to Reliability Standard for Transmission Vegetation Management, Order No. 777,142 FERC ¶ 61,028 (2013).

<sup>&</sup>lt;sup>9</sup>These directives were issued by FERC in Order No. 772, *Regional Reliability Standard PRC-006-SERC-01 – Automatic Underfrequency Load Shedding Requirements*, 141 FERC ¶ 61,243 (2012), after the 2012 year-end number of directives was established and were resolved in the March 11, 2013 NERC Compliance Filing in response to FERC Order No. 772.

<sup>&</sup>lt;sup>10</sup>Version 5 CIP Reliability Standards, Order No. 791,145 FERC ¶ 61,160 (2013).

<sup>&</sup>lt;sup>11</sup>FERC Order 786, Transmission Planning Reliability Standards (October 17, 2013).

<sup>&</sup>lt;sup>12</sup>Frequency Response and Frequency Bias Setting Reliability Standard, Order No, 794, 146 FERC ¶ 61,024 (2014).

<sup>&</sup>lt;sup>13</sup>Protection System Maintenance Reliability Standard, Order No. 793, 145 FERC ¶ 61,253 (2013).

<sup>&</sup>lt;sup>14</sup>Generator Verification Reliability Standards, Order No. 796, 146 FERC ¶ 61,213 (2014).

<sup>&</sup>lt;sup>15</sup>One directive was filed in the Petition of the North American Electric Reliability Corporation For the Approval of Proposed Reliability Standard CIP-014-1, on May 23, 2014.

<sup>&</sup>lt;sup>16</sup>One directive was filed in the NERC Compliance Filing in Response to Order No. 773 – Approving Revisions to the ERO Definition of BES and Rules of Procedure, on April 4, 2013; three directives were filed in the Petition of NERC of Approval of Revision to the Definition of "Bulk Electric System" and Request for Expedited Action, on December 13, 2013.

<sup>&</sup>lt;sup>17</sup>Filed in the NERC *Compliance Filing of Reliability Standard FAC-003-2*, on July 12, 2013. One of these directives was not related to standards.

- PRC-006-SERC-01: Two directives<sup>18</sup>
- Stage 1 GMD standard (EOP-010-1): Three directives<sup>19</sup>
- CIP V5 (VSL/VRFs): Seven directives<sup>20</sup>
- TPL-001-4: One directive<sup>21</sup>
- BAL-003-1: Two directives<sup>22</sup>
- MOD-026 and MOD-027: One directive<sup>23</sup>
- PRC-005-2 (VSL): One directive<sup>24</sup>

#### **Summary of Total Directives**

As of December 31, 2014, there were 53 standards-related directives, including FERC guidances, to be resolved. Table 4 below illustrates the progress to address FERC directives issued prior to 2013, post-2013 and in total. It does not include non-standards related directives.

	Pre-2013 Directives	Post 2012 Directives	Total
Issued prior to year-end 2012	191		
Issued in 2013/2014		50	
Resolved as of December 31, 2014	164	24	
Remaining	27	26	53
Projected to be resolved in 2015	22	22	44
Projected remaining at year-end 2015	5	4	9

\*Does not include directives for other NERC departments

Table 4: Summary of Total Directives

 <sup>&</sup>lt;sup>18</sup>Filed in the NERC Compliance Filing in Response to Order No. 772 on Regional Reliability Standard PRC-006-SERC-01, on March 11, 2013.
<sup>19</sup>Filed in the Petition of the North American Reliability Corporation for Approval of Proposed Reliability Standard EOP-010-1 – Geomagnetic Disturbance Operations, on November 14, 2014.

<sup>&</sup>lt;sup>20</sup>Filed in the NERC petition NERC Revisions to the VRFs and VSLs Assigned to Certain CIP Reliability Standards, on May 15, 2014.

<sup>&</sup>lt;sup>21</sup>Filed in the NERC petition NERC Revisions to the VRFs and VSLs to Certain Reliability Standards, on August 29, 2014.

<sup>&</sup>lt;sup>22</sup>Filed in the NERC petition NERC Revisions to the VRFs and VSLs to Certain Reliability Standards, on August 29, 2014.

<sup>&</sup>lt;sup>23</sup>Filed in the NERC petition *NERC Revisions to the VRFs and VSLs to Certain Reliability Standards*, on August 29, 2014.

<sup>&</sup>lt;sup>24</sup>Filed in the NERC petition *NERC Revisions to a Violation Severity Level Assigned to Protection System Maintenance Reliability Standards*, on June 4, 2014.

### **Background and Summary**

#### **Standard Development Projects**

In late 2014 and early 2015, the Standards Committee and NERC Staff initiated the following Standard projects listed in the 2015-2017 Reliability Standards Development Plan:

#### Project 2015-02 – Emergency Operations Periodic Review

The purpose of this project is to conduct a periodic review of a subset of Emergency Operations (EOP) Standards. The periodic review comprehensively reviews EOP-004, EOP-005, EOP-006, and EOP-008 to evaluate, for example, whether the requirements are clear and unambiguous. The periodic review will include background information, along with any associated worksheets or reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be: (1) reaffirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn. The three NERC Reliability Standards in this periodic review project concern methods for planning for, reporting, and communicating Emergencies.

#### Project 2015-03 – Periodic Review of System Operating Limit Standards

The goal of this project is to conduct a periodic review of a subset of Facilities Design, Connections, and Maintenance (FAC) Standards. The periodic review comprehensively reviews FAC-010, FAC-011, and FAC-014 to evaluate, for example, whether the requirements are clear and unambiguous. The three NERC Reliability Standards in this periodic review project concern methods for determining and communicating System Operating Limits. The periodic review will include background information, along with any associated worksheets or reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be: (1) reaffirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

#### Project 2015-04 - Alignment of NERC Glossary of Terms (Definitions section of the Rules of Procedure)

This project aligns the NERC Glossary of Terms (Glossary) and the Definitions Used in the Rules of Procedure (Appendix 2 of the Rules of Procedure). There are many inconsistencies between the defined terms contained in the Glossary and the NERC Rules of Procedure. The drafting team will be responsible for identifying inconsistencies in the defined terms, revising the defined term in order to address the inconsistencies, and posting for comment and ballot the proposed revisions to the defined terms.

The drafting team work and proposed revisions will be undertaken in accordance with the processes outlined in the NERC Rules of Procedure, Section 1400 ("Amendments to the NERC Rules of Procedure") and the Standard Processes Manual, Section 5 ("Process for Developing a Defined Term").

#### Project 2007-06.2 – System Protection Coordination

The proposed project is phase 2 of Project 2007-06 – System Protection Coordination is revising Reliability Standard PRC-001-1.1 (System Protection Coordination). Phase 1 is under the direction of the System Protection Coordination Standard Drafting Team (SPCSDT) which is proposing to incorporate PRC-001-1.1, Requirements R3 and R4 into a new Reliability Standard, PRC-027-1 (Coordination of Protection System Performance During Faults). Phase 2 will focus on revising PRC-001-1.1, Requirements R1, R2, R5, and R6 in accordance with the revisions occurring due to phase 1.

#### New Standards Committee Members:

The Standards Committee conducted its 2015-2016 term elections. The following are new members to the Standards Committee:

Barry Lawson of National Rural Electric Cooperative Association (NRECA) John Bussman of AECI Colt Norrish of PacifiCorp David Kiguel – Small Consumer