

## Meeting Agenda Project 2007-17.3 Standard Drafting Team

March 31, 2014 | 1:00-5:00 p.m. ET

April 1, 2014 | 8:00 a.m.-5:00 p.m. ET

April 2, 2014 | 8:00 a.m.-5:00 p.m. ET

April 3, 2014 | 8:00 a.m.-5:00 p.m. ET

April 4, 2014 | 8:00 a.m.-Noon ET

NERC Headquarters  
3353 Peachtree Road NE  
Suite 600, North Tower  
Atlanta, GA 30326

ReadyTalk Information

Dial-in: 1.866.740.1260 | Access Code: 5153394 | Security Code: 824144

Registration for Monday: [ReadyTalk Registration](#)

Registration for Tuesday: [ReadyTalk Registration](#)

Registration for Wednesday: [ReadyTalk Registration](#)

Registration for Thursday: [ReadyTalk Registration](#)

Registration for Friday: [ReadyTalk Registration](#)

### **Monday, March 31**

- 1. Welcome and Introductions\* – Jordan Mallory and Charles Rogers**
- 2. NERC Antitrust Guidelines and Public Meeting Notice\*– Jordan Mallory**
- 3. Determination of Quorum – Jordan Mallory**

The guidelines for a NERC Standard Drafting Team (SDT) states that a quorum requires two-thirds of the voting members of the SDT.

- 4. Expectations for SDT Members and Observers\*– Jordan Mallory**
  - Standards Development Process – Participant Conduct Policy
  - Email Listserv Policy
- 5. Overview of NERC Standard Process Manual\*– Jordan Mallory**
- 6. Independent Experts Content and Quality Criteria – Val Agnew**
- 7. Tentative Development Schedule\*– Jordan Mallory**

- a. Completion Goal
- b. Coordination with other PRC projects
- 8. Identification of Issues – Jordan Mallory, Charles Rogers, and Bill Edwards**
  - a. Standards Authorization Request (SAR)
  - b. Review of SAR Scope
    - i. 24 year retention – Bill Edwards
  - c. Other questions and concerns
- 9. Standards Authorization Request Comments\* – Jordan Mallory and Charles Rogers**
  - a. Response to comments format
  - b. Review and respond to comments

### **Tuesday, April 1**

- 10. Developing PRC-005-4**
  - a. Capture questions and concerns
  - b. Determine approach to PRC-005-4

### **Wednesday, April 2**

- 11. Continue Development of PRC-005-4**

### **Thursday, April 3**

- 12. Continue Development of PRC-005-4**

### **Friday, April 4**

- 13. RSAW Discssuon – Matthew Gibbons, Robert Kenyon, and Hugo Perez**
- 14. Continue Development of PRC-005-4**
- 15. Action Items and Next Steps – Jordan Mallory**
- 16. Planning for Webinars, Full Team Calls, Etc. – Jordan Mallory**
- 17. Disussion of Industry Outreach Opportunities\*– Jordan Mallory**
  - a. Update Communications Plan
- 18. Future Meeting Schedules and Venues – Jordan Mallory**
  - a. June 2014

\*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.

# Standards Development Process

## Participant Conduct Policy

### I. General

To ensure that the standards development process is conducted in a responsible, timely and efficient manner, it is essential to maintain a professional and constructive work environment for all participants. Participants include, but are not limited to, members of the standard drafting team and observers.

Consistent with the NERC Rules of Procedure and the NERC Standard Processes Manual, participation in NERC's Reliability Standards development balloting and approval processes is open to all entities materially affected by NERC's Reliability Standards. In order to ensure the standards development process remains open and to facilitate the development of reliability standards in a timely manner, NERC has adopted the following Participant Conduct Policy for all participants in the standards development process.

### II. Participant Conduct Policy

All participants in the standards development process must conduct themselves in a professional manner at all times. This policy includes in-person conduct and any communication, electronic or otherwise, made as a participant in the standards development process. Examples of unprofessional conduct include, but are not limited to, verbal altercations, use of abusive language, personal attacks or derogatory statements made against or directed at another participant, and frequent or patterned interruptions that disrupt the efficient conduct of a meeting or teleconference.

### III. Reasonable Restrictions in Participation

If a participant does not comply with the Participant Conduct Policy, certain reasonable restrictions on participation in the standards development process may be imposed as described below.

If a NERC Standards Developer determines, by his or her own observation or by complaint of another participant, that a participant's behavior is disruptive to the orderly conduct of a meeting in progress, the NERC Standards Developer may remove the participant from a meeting. Removal by the NERC Standards Developer is limited solely to the meeting in progress and does not extend to any future meeting. Before a participant may be asked to leave the meeting, the NERC Standards Developer must first remind the participant of the obligation to conduct himself or herself in a professional manner and provide an opportunity for the participant to comply. If a participant is requested to leave a meeting by a NERC Standards Developer, the participant must cooperate fully with the request.

Similarly, if a NERC Standards Developer determines, by his or her own observation or by complaint of another participant, that a participant's behavior is disruptive to the orderly conduct of a

teleconference in progress, the NERC Standards Developer may request the participant to leave the teleconference. Removal by the NERC Standards Developer is limited solely to the teleconference in progress and does not extend to any future teleconference. Before a participant may be asked to leave the teleconference, the NERC Standards Developer must first remind the participant of the obligation to conduct himself or herself in a professional manner and provide an opportunity for the participant to comply. If a participant is requested to leave a teleconference by a NERC Standards Developer, the participant must cooperate fully with the request. Alternatively, the NERC Standards Developer may choose to terminate the teleconference.

At any time, the NERC Director of Standards, or a designee, may impose a restriction on a participant from one or more future meetings or teleconferences, a restriction on the use of any NERC-administered list server or other communication list, or such other restriction as may be reasonably necessary to maintain the orderly conduct of the standards development process. Restrictions imposed by the Director of Standards, or a designee, must be approved by the NERC General Counsel, or a designee, prior to implementation to ensure that the restriction is not unreasonable. Once approved, the restriction is binding on the participant. A restricted participant may request removal of the restriction by submitting a request in writing to the Director of Standards. The restriction will be removed at the reasonable discretion of the Director of Standards or a designee.

Any participant who has concerns about NERC's Participant Conduct Policy may contact NERC's General Counsel.

## NERC Email List Policy

NERC provides email lists, or “listservs,” to NERC committees, groups, and teams to facilitate sharing information about NERC activities; including balloting, committee, working group, and drafting team work, with interested parties. All emails sent to NERC listserv addresses must be limited to topics that are directly relevant to the listserv group’s assigned scope of work. NERC reserves the right to apply administrative restrictions to any listserv or its participants, without advance notice, to ensure that the resource is used in accordance with this and other NERC policies.

Prohibited activities include using NERC-provided listservs for any price-fixing, division of markets, and/or other anti-competitive behavior.<sup>1</sup> Recipients and participants on NERC listservs may not utilize NERC listservs for their own private purposes. This may include announcements of a personal nature, sharing of files or attachments not directly relevant to the listserv group’s scope of responsibilities, and/or communication of personal views or opinions, unless those views are provided to advance the work of the listserv’s group. Use of NERC’s listservs is further subject to NERC’s Participant Conduct Policy for the Standards Development Process.

- *Updated April 2013*

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<sup>1</sup> Please see NERC’s Antitrust Compliance Guidelines for more information about prohibited antitrust and anti-competitive behavior or practices. This policy is available at <http://www.nerc.com/commondocs.php?cd=2>

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

## Standard Processes Manual

VERSION 3

Effective: June 26, 2013

to ensure  
the reliability of the  
bulk power system



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## Section 1.0: Introduction

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### 1.1: Authority

This manual is published by the authority of the NERC Board of Trustees. The Board of Trustees, as necessary to maintain NERC's certification as the Electric Reliability Organization ("ERO"), may file the manual with Applicable Governmental Authorities for approval as an ERO document. When approved, the manual is appended to and provides implementation detail in support of the ERO Rules of Procedure Section 300 — Reliability Standards Development.

Capitalized terms not otherwise defined herein, shall have the meaning set forth in the Definitions Used in the Rules of Procedure, Appendix 2 to the Rules of Procedure.

### 1.2: Scope

The policies and procedures in this manual shall govern the activities of the North American Electric Reliability Corporation ("NERC") related to the development, approval, revision, reaffirmation, and withdrawal of Reliability Standards, Interpretations, Violation Risk Factors ("VRFs"), Violation Severity Levels ("VSLs"), definitions, Variances, and reference documents developed to support standards for the Reliable Operation and planning of the North American Bulk Power Systems.

This manual also addresses the role of the Standards Committee, drafting team and ballot body in the development and approval of Compliance Elements in conjunction with standard development.

### 1.3: Background

NERC is a nonprofit corporation formed for the purpose of becoming the North American ERO. NERC works with all stakeholder segments of the electric industry, including electricity users, to develop Reliability Standards for the reliability planning and Reliable Operation of the North American Bulk Power Systems. In the United States, the Energy Policy Act of 2005 added Section 215 to the Federal Power Act for the purpose of establishing a framework to make Reliability Standards mandatory for all Bulk Power System owners, operators, and users. Similar authorities are provided by Applicable Governmental Authorities in Canada. NERC was certified as the ERO effective July 2006. *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062, *order on reh'g and compliance*, 117 FERC ¶ 61,126 (2006), *order on compliance*, 118 FERC ¶ 61,030 (2007).

### 1.4: Essential Attributes of NERC's Reliability Standards Processes

NERC's Reliability Standards development processes provide reasonable notice and opportunity for public comment, due process, openness, and balance of interests in developing a proposed Reliability Standard consistent with the attributes necessary for American National Standards Institute ("ANSI") accreditation. The same attributes, as well as transparency, consensus-building, and timeliness, are also required under the ERO Rules of Procedure Section 304.

- ***Open Participation***

Participation in NERC's Reliability Standards development balloting and approval processes shall be open to all entities materially affected by NERC's Reliability Standards. There shall be no financial barriers to participation in NERC's Reliability Standards balloting and approval processes. Membership in the Registered Ballot Body shall not be conditional upon membership in any organization, nor unreasonably restricted on the basis of technical qualifications or other such requirements.

- ***Balance***

NERC's Reliability Standards development processes shall not be dominated by any two interest categories, individuals, or organizations and no single interest category, individual, or organization is able to defeat a matter.

NERC shall use a voting formula that allocates each industry Segment an equal weight in determining the final outcome of any Reliability Standard action. The Reliability Standards development processes shall have a balance of interests. Participants from diverse interest categories shall be encouraged to join the Registered Ballot Body and participate in the balloting process, with a goal of achieving balance between the interest categories. The Registered Ballot Body serves as the consensus body voting to approve each new or proposed Reliability Standard, definition, Variance, and Interpretation.

- ***Coordination and harmonization with other American National Standards activities***

NERC is committed to resolving any potential conflicts between its Reliability Standards development efforts and existing American National Standards and candidate American National Standards.

- ***Notification of standards development***

NERC shall publicly distribute a notice to each member of the Registered Ballot Body, and to each stakeholder who indicates a desire to receive such notices, for each action to create, revise, reaffirm, or withdraw a Reliability Standard, definition, or Variance; and for each proposed Interpretation. Notices shall be distributed electronically, with links to the relevant information, and notices shall be posted on NERC's Reliability Standards web page. All notices shall identify a readily available source for further information.

- ***Transparency***

The process shall be transparent to the public.

- ***Consideration of views and objections***

Drafting teams shall give prompt consideration to the written views and objections of all participants as set forth herein. Drafting teams shall make an effort to resolve each objection that is related to the topic under review.

- ***Consensus Building***

The process shall build and document consensus for each Reliability Standard, both with regard to the need and justification for the Reliability Standard and the content of the Reliability Standard.

- ***Consensus vote***

NERC shall use its voting process to determine if there is sufficient consensus to approve a proposed Reliability Standard, definition, Variance, or Interpretation. NERC shall form a ballot pool for each Reliability Standard action from interested members of its Registered Ballot Body. Approval of any Reliability Standard action requires:

- A quorum, which is established by at least 75% of the members of the ballot pool submitting a response excluding unreturned ballots; and
- A two-thirds majority of the weighted Segment votes cast shall be affirmative. The number of votes cast during all stages of balloting except the final ballot is the sum of affirmative and negative votes with comments, excluding abstentions, non-responses, and

negative votes without comments. During the final ballot, the number of votes cast is the sum of affirmative and negative votes, excluding abstentions and non-responses.

- ***Timeliness***  
Development of Reliability Standards shall be timely and responsive to new and changing priorities for reliability of the Bulk Power System.
- ***Metric Policy***  
The International System of units is the preferred units of measurement in NERC Reliability Standard. However, because NERC's Reliability Standards apply in Canada, the United States and portions of Mexico, where applicable, measures are provided in both the metric and English units.

### **1.5: Ethical Participation**

All participants in the NERC Standard development process, including drafting teams, quality reviewers, Standards Committee members and members of the Registered Ballot Body, are obligated to act in an ethical manner in the exercise of all activities conducted pursuant to the terms and conditions of the Standard Processes Manual and the standard development process.

## Section 2.0: Elements of a Reliability Standard

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### 2.1: Definition of a Reliability Standard

A Reliability Standard includes a set of Requirements that define specific obligations of owners, operators, and users of the North American Bulk Power Systems. The Requirements shall be material to reliability and measurable. A Reliability Standard is defined as follows:

“Reliability Standard” means a requirement to provide for Reliable Operation of the Bulk Power System, including without limiting the foregoing, requirements for the operation of existing Bulk Power System Facilities, including cyber security protection, and including the design of planned additions or modifications to such Facilities to the extent necessary for Reliable Operation of the Bulk Power System, but the term does not include any requirement to enlarge Bulk Power System Facilities or to construct new transmission capacity or generation capacity. A Reliability Standard shall not be effective in the United States until approved by the Federal Energy Regulatory Commission and shall not be effective in other jurisdictions until made or allowed to become effective by the Applicable Governmental Authority. *See Appendix 2 to the NERC Rules of Procedure, Definitions Used in the Rules of Procedure.*

### 2.2: Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American Bulk Power Systems.<sup>1</sup> Each Reliability Standard shall enable or support one or more of the reliability principles, thereby ensuring that each Reliability Standard serves a purpose in support of reliability of the North American Bulk Power Systems. Each Reliability Standard shall also be consistent with all of the reliability principles, thereby ensuring that no Reliability Standard undermines reliability through an unintended consequence.

### 2.3: Market Principles

Recognizing that Bulk Power System reliability and electricity markets are inseparable and mutually interdependent, all Reliability Standards shall be consistent with the market interface principles.<sup>2</sup> Consideration of the market interface principles is intended to ensure that Reliability Standards are written such that they achieve their reliability objective without causing undue restrictions or adverse impacts on competitive electricity markets.

### 2.4: Types of Reliability Requirements

Generally, each Requirement of a Reliability Standard shall identify what Functional Entities shall do, and under what conditions, to achieve a specific reliability objective. Although Reliability Standards all follow this format, several types of Requirements may exist, each with a different approach to measurement.

- **Performance-based Requirements** define a specific reliability objective or outcome achieved by one or more entities that has a direct, observable effect on the reliability of the Bulk Power System, *i.e.* an effect that can be measured using power system data or trends. In its simplest form, a performance-based requirement has four components: *who*,

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<sup>1</sup> The intent of the set of NERC Reliability Standards is to deliver an adequate level of reliability. The latest set of reliability principles and the latest set of characteristics associated with an adequate level of reliability are posted on the Reliability Standards Resources web page.

<sup>2</sup> The latest set of market interface principles is posted on the Reliability Standards Resources web page.

*under what conditions (if any), shall perform what action, to achieve what particular result or outcome.*

- **Risk-based Requirements** define actions by one or more entities that reduce a stated risk to the reliability of the Bulk Power System and can be measured by evaluating a particular product or outcome resulting from the required actions. A risk-based reliability requirement should be framed as: *who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the Bulk Power System.*
- **Capability-based Requirements** define capabilities needed by one or more entities to perform reliability functions and can be measured by demonstrating that the capability exists as required. A capability-based reliability requirement should be framed as: *who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the Bulk Power System.*

The body of reliability Requirements collectively provides a defense-in-depth strategy supporting reliability of the Bulk Power System.

### 2.5: Elements of a Reliability Standard

A Reliability Standard includes several components designed to work collectively to identify what entities must do to meet their reliability-related obligations as an owner, operator or user of the Bulk Power System.

The components of a Reliability Standard may include the following:

**Title:** A brief, descriptive phrase identifying the topic of the Reliability Standard.

**Number:** A unique identification number assigned in accordance with a published classification system to facilitate tracking and reference to the Reliability Standards.<sup>3</sup>

**Purpose:** The reliability outcome achieved through compliance with the Requirements of the Reliability Standard.

**Applicability:** Identifies which entities are assigned reliability requirements. The specific Functional Entities and Facilities to which the Reliability Standard applies.

**Effective Dates:** Identification of the date or pre-conditions determining when each Requirement becomes effective in each jurisdiction.

**Requirement:** An explicit statement that identifies the Functional Entity responsible, the action or outcome that must be achieved, any conditions achieving the action or outcome, and the reliability-related benefit of the action or outcome. Each Requirement shall be a statement for which compliance is mandatory.

**Compliance Elements:** Elements to aid in the administration of ERO compliance monitoring and enforcement responsibilities.<sup>4</sup>

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<sup>3</sup> Reliability Standards shall be numbered in accordance with the NERC Standards Numbering Convention as provide on the Reliability Standards Resources web page.

- **Measure:** Provides identification of the evidence or types of evidence that may demonstrate compliance with the associated requirement.
- **Violation Risk Factors and Violation Severity Levels:** Violation risk factors (VRFs) and violation severity levels (VSLs) are used as factors when determining the size of a penalty or sanction associated with the violation of a requirement in an approved reliability standard.<sup>5</sup> Each requirement in each reliability standard has an associated VRF and a set of VSLs. VRFs and VSLs are developed by the drafting team, working with NERC Staff, at the same time as the associated reliability standard, but are not part of the reliability standard. The Board of Trustees is responsible for approving VRFs and VSLs.
  - **Violation Risk Factors**  
VRFs identify the potential reliability significance of noncompliance with each requirement. Each requirement is assigned a VRF in accordance with the latest approved set of VRF criteria.<sup>6</sup>
  - **Violation Severity Levels**  
VSLs define the degree to which compliance with a requirement was not achieved. Each requirement shall have at least one VSL. While it is preferable to have four VSLs for each requirement, some requirements do not have multiple “degrees” of noncompliant performance and may have only one, two, or three VSLs. Each requirement is assigned one or more VSLs in accordance with the latest approved set of VSL criteria.<sup>7</sup>

**Version History:** The version history is provided for informational purposes and lists information regarding prior versions of Reliability Standards.

**Variance:** A Requirement (to be applied in the place of the continent-wide Requirement) that is applicable to a specific geographic area or to a specific set of Registered Entities.

**Compliance Enforcement Authority:** The entity that is responsible for assessing performance or outcomes to determine if an entity is compliant with the associated Reliability Standard. The Compliance Enforcement Authority will be NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

**Application guidelines:** Guidelines to support the implementation of the associated Reliability Standard.

**Procedures:** Procedures to support implementation of the associated Reliability Standard.

The only mandatory and enforceable components of a Reliability Standard are the: (1) applicability, (2) Requirements, and the (3) effective dates. The additional components are included in the Reliability Standard for informational purposes, to establish the relevant scope and technical paradigm, and to

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<sup>4</sup> It is the responsibility of the ERO staff to develop compliance tools for each standard; these tools are not part of the standard but are referenced in this manual because the preferred approach to developing these tools is to use a transparent process that leverages the technical and practical expertise of the drafting team and ballot pool..

<sup>5</sup> The *Sanction Guidelines of the North American Electric Reliability Corporation* identifies the factors used to determine a penalty or sanction for violation of reliability standard and is posted on the NERC Web Site.

<sup>6</sup> The latest set of approved VRF Criteria is posted on the Reliability Standards Resources Web Page.

<sup>7</sup> The latest set of approved VSL Criteria is posted on the Reliability Standards Resources Web Page.

## Elements of a Reliability Standard

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provide guidance to Functional Entities concerning how compliance will be assessed by the Compliance Enforcement Authority.



## Section 3.0: Reliability Standards Program Organization

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### 3.1: Board of Trustees

The NERC Board of Trustees shall consider for adoption Reliability Standards, definitions, Variances and Interpretations and associated implementation plans that have been processed according to the processes identified in this manual. Once the Board adopts a Reliability Standard, definition, Variance or Interpretation, the Board shall direct NERC Staff to file the document(s) for approval with Applicable Governmental Authorities.

### 3.2: Registered Ballot Body

The Registered Ballot Body comprises all entities or individuals that qualify for one of the Segments approved by the Board of Trustees<sup>8</sup>, and are registered with NERC as potential ballot participants in the voting on Reliability Standards. Each member of the Registered Ballot Body is eligible to join the ballot pool for each Reliability Standard action.

### 3.3: Ballot Pool

Each Reliability Standard action has its own ballot pool formed of interested members of the Registered Ballot Body. The ballot pool comprises those members of the Registered Ballot Body that respond to a pre-ballot request to participate in that particular Reliability Standard action. The ballot pool votes on each Reliability Standards action. The ballot pool remains in place until all balloting related to that Reliability Standard action has been completed.

### 3.4: Standards Committee

The Standards Committee serves at the pleasure and direction of the NERC Board of Trustees, and the Board approves the Standards Committee's Charter.<sup>9</sup> Standards Committee members are elected by their respective Segment's stakeholders. The Standards Committee consists of two members of each of the Segments in the Registered Ballot Body.<sup>10</sup> A member of the NERC Reliability Standards Staff shall serve as the non-voting secretary to the Standards Committee.

The Standards Committee is responsible for managing the Reliability Standards processes for development of Reliability Standards, definitions, Variances and Interpretations in accordance with this manual. The responsibilities of the Standards Committee are defined in detail in the Standards Committee's Charter. The Standards Committee is responsible for ensuring that the Reliability Standards, definitions, Variances and Interpretations developed by drafting teams are developed in accordance with the processes in this manual and meet NERC's benchmarks for Reliability Standards as well as criteria for governmental approval.<sup>11</sup>

The Standards Committee has the right to remand work to a drafting team, to reject the work of a drafting team, or to accept the work of a drafting team. The Standards Committee may disband a drafting team if it determines (a) that the drafting team is not producing a standard in a timely manner; (b) the drafting

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<sup>8</sup> The industry Segment qualifications are described in the Development of the Registered Ballot Body and Segment Qualification Guidelines document posted on the Reliability Standards Resources web page and are included in Appendix 3D of the NERC Rules of Procedure.

<sup>9</sup> The Standards Committee Charter is posted on the Reliability Standards Resources web page.

<sup>10</sup> In addition to balanced Segment representation, the Standards Committee shall also have representation that is balanced among countries based on Net Energy for Load ("NEL"). As needed, the Board of Trustees may approve special procedures for the balancing of representation among countries represented within NERC.

<sup>11</sup> The Ten Benchmarks of an Excellent Reliability Standard and FERC's Criteria for Approving Reliability Standards are posted on the Reliability Standards Resources web page.

team is not able to produce a standard that will achieve industry consensus; (c) the drafting team has not addressed the scope of the SAR; or (d) the drafting team has failed to fully address a regulatory directive or otherwise provided a responsive or equally efficient and effective alternative. The Standards Committee may direct a drafting team to revise its work to follow the processes in this manual or to meet the criteria for NERC's benchmarks for Reliability Standards, or to meet the criteria for governmental approval; however, the Standards Committee shall not direct a drafting team to change the technical content of a draft Reliability Standard.

The Standards Committee shall meet at regularly scheduled intervals (either in person, or by other means). All Standards Committee meetings are open to all interested parties.

### **3.5: NERC Reliability Standards Staff**

The NERC Reliability Standards Staff, led by the Director of Standards, is responsible for administering NERC's Reliability Standards processes in accordance with this manual. The NERC Reliability Standards Staff provides support to the Standards Committee in managing the Reliability Standards processes and in supporting the work of all drafting teams. The NERC Reliability Standards Staff works to ensure the integrity of the Reliability Standards processes and consistency of quality and completeness of the Reliability Standards. The NERC Reliability Standards Staff facilitates all steps in the development of Reliability Standards, definitions, Variances, Interpretations and associated implementation plans.

The NERC Reliability Standards Staff is responsible for presenting Reliability Standards, definitions, Variances, and Interpretations to the NERC Board of Trustees for adoption. When presenting Reliability Standards-related documents to the NERC Board of Trustees for adoption or approval, the NERC Reliability Standards Staff shall report the results of the associated stakeholder ballot, including identification of unresolved stakeholder objections and an assessment of the document's practicality and enforceability.

### **3.6: Drafting Teams**

The Standards Committee shall appoint industry experts to drafting teams to work with stakeholders in developing and refining Standard Authorization Requests ("SARs"), Reliability Standards, definitions, and Variances. The NERC Reliability Standards Staff shall appoint drafting teams that develop Interpretations. The NERC Reliability Standards Staff shall provide, or solicit from the industry, essential support for each of the drafting teams in the form of technical writers, legal, compliance, and rigorous and highly trained project management and facilitation support personnel.

Each drafting team may consist of a group of technical, legal, and compliance experts that work cooperatively with the support of the NERC Reliability Standards Staff.<sup>12</sup> The technical experts provide the subject matter expertise and guide the development of the technical aspects of the Reliability Standard, assisted by technical writers, legal and compliance experts. The technical experts maintain authority over the technical details of the Reliability Standard. Each drafting team appointed to develop a Reliability Standard is responsible for following the processes identified in this manual as well as procedures developed by the Standards Committee from the inception of the assigned project through the final acceptance of that project by Applicable Governmental Authorities.

Collectively, each drafting team:

- Drafts proposed language for the Reliability Standards, definitions, Variances, and/or Interpretations and associated implementation plans.

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<sup>12</sup> The detailed responsibilities of drafting teams are outlined in the Drafting Team Guidelines, which is posted on the Reliability Standards Resources web page.

- Develops and refines technical documents that aid in the understanding of Reliability Standards.
- Works collaboratively with NERC Compliance Monitoring and Enforcement Staff to develop Reliability Standard Audit Worksheets (“RSAWs”) at the same time Reliability Standards are developed.
- Provides assistance to NERC Staff in the development of Compliance Elements of proposed Reliability Standards.
- Solicits, considers, and responds to comments related to the specific Reliability Standards development project.
- Participates in industry forums to help build consensus on the draft Reliability Standards, definitions, Variances, and/or Interpretations and associated implementation plans.
- Assists in developing the documentation used to obtain governmental approval of the Reliability Standards, definitions, Variances, and/or Interpretations and associated implementation plans.

All drafting teams report to the Standards Committee.

### **3.7: Governmental Authorities**

The Federal Energy Regulatory Commission (“FERC”) in the United States of America, and where permissible by statute or regulation, the provincial government of each of the eight Canadian Provinces (Manitoba, Nova Scotia, Saskatchewan, Alberta, Ontario, British Columbia, New Brunswick and Quebec) and the National Energy Board of Canada have the authority to approve each new, revised or withdrawn Reliability Standard, definition, Variance, VRF, VSL and Interpretation following adoption or approval by the NERC Board of Trustees.

### **3.8: Committees, Subcommittees, Working Groups, and Task Forces**

NERC’s technical committees, subcommittees, working groups, and task forces provide technical research and analysis used to justify the development of new Reliability Standards and provide guidance, when requested by the Standards Committee, in overseeing field tests or collection and analysis of data. The technical committees, subcommittees, working groups, and task forces provide feedback to drafting teams during both informal and formal comment periods.

The Standards Committee may request that a NERC technical committee or other group prepare a Technical document to support development of a proposed Reliability Standard.

The technical committees, subcommittees, working groups, and task forces share their observations regarding the need for new or modified Reliability Standards or Requirements with the NERC Reliability Standards Staff for use in identifying the need for new Reliability Standards projects for the three-year *Reliability Standards Development Plan*.

### **3.9: Compliance and Certification Committee**

The Compliance and Certification Committee is responsible for monitoring NERC’s compliance with its Reliability Standards processes and procedures and for monitoring NERC’s compliance with the Rules of Procedure regarding the development of new or revised Reliability Standards, definitions, Variances, and Interpretations. The Compliance and Certification Committee may assist in verifying that each proposed Reliability Standard is enforceable as written before the Reliability Standard is posted for formal stakeholder comment and balloting.

### **3.10: Compliance Monitoring and Enforcement Program**

As applicable, the NERC Compliance Monitoring and Enforcement Program Staff manages and enforces compliance with approved Reliability Standards. Compliance Monitoring and Enforcement Staff are responsible for the development of select compliance tools. The drafting team and the Compliance Monitoring and Enforcement Program Staff shall work together during the Reliability Standard development process to ensure an accurate and consistent understanding of the Requirements and their intent, and to ensure that applicable compliance tools accurately reflect that intent. The goal of this collaboration is to ensure that application of the Reliability Standards in the Compliance Monitoring and Enforcement Program by NERC and the Regional Entities is consistent.

The Compliance Monitoring and Enforcement Program is encouraged to share its observations regarding the need for new or modified Requirements with the NERC Reliability Standards Staff for use in identifying the need for new Reliability Standards projects.

### **3.11: North American Energy Standards Board (“NAESB”)**

While NERC has responsibility for developing Reliability Standards to support reliability, NAESB has responsibility for developing business practices and coordination between reliability and business practices as needed. NERC and NAESB developed and approved a procedure<sup>13</sup> to guide the development of Reliability Standards and business practices where the reliability and business practice components are intricately entwined within a proposed Reliability Standard.

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<sup>13</sup> The NERC NAESB Template Procedure for Joint Standards Development and Coordination is posted on the Reliability Standards Resources web page.

## Section 4.0: Process for Developing, Modifying, Withdrawing or Retiring a Reliability Standard

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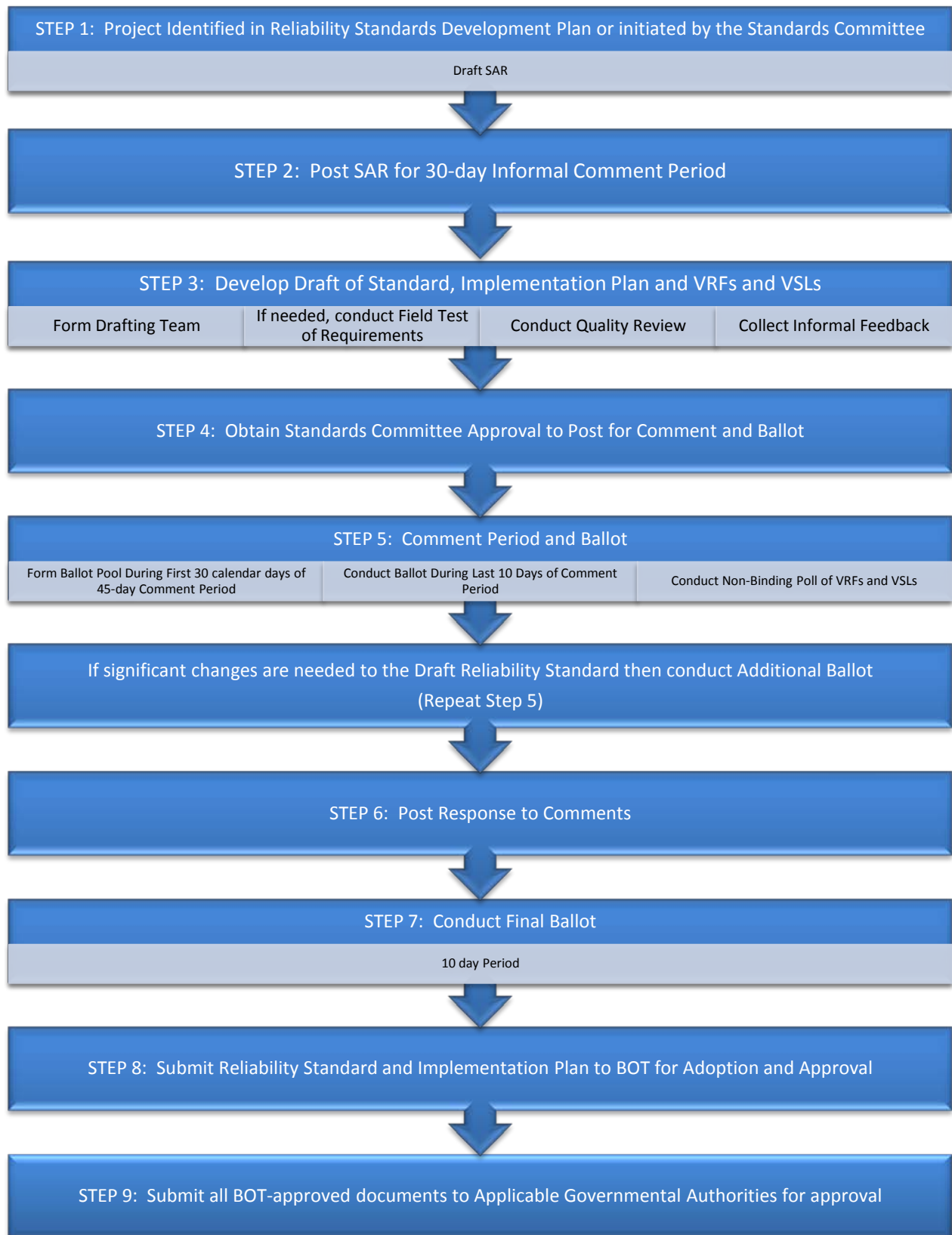
There are several steps to the development, modification, withdrawal or retirement of a Reliability Standard.<sup>14</sup>

The development of the *Reliability Standards Development Plan* is the appropriate forum for reaching agreement on whether there is a need for a Reliability Standard and the scope of a proposed Reliability Standard. A typical process for a project identified in the *Reliability Standards Development Plan* that involves a revision to an existing Reliability Standard is shown below. Note that most projects do not include a field test.

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<sup>14</sup> The process described is also applicable to projects used to propose a new or modified definition or Variance or to propose retirement of a definition or Variance.

## Process for Developing, Modifying, Withdrawing or Retiring a Reliability Standard



**FIGURE 1: Process for Developing or Modifying a Reliability Standard**

### 4.1: Posting and Collecting Information on SARs

#### Standard Authorization Request

A Standard Authorization Request (“SAR”) is the form used to document the scope and reliability benefit of a proposed project for one or more new or modified Reliability Standards or definitions or the benefit of retiring one or more approved Reliability Standards. Any entity or individual, including NERC committees or subgroups and NERC Staff, may propose the development of a new or modified Reliability Standard, or may propose the retirement of a Reliability Standard (in whole or in part), by submitting a completed SAR<sup>15</sup> to the NERC Reliability Standards Staff. The Standards Committee has the authority to approve the posting of all SARs for projects that propose (i) developing a new or modified Reliability Standard or definition or (ii) propose retirement of an existing Reliability Standard (or elements thereof).

The NERC Reliability Standards Staff sponsors an open solicitation period each year seeking ideas for new Reliability Standards projects (using *Reliability Standards Suggestions and Comments forms*). The open solicitation period is held in conjunction with the annual revision to the *Reliability Standards Development Plan*. While the Standards Committee prefers that ideas for new projects be submitted during this annual solicitation period through submittal of a *Reliability Standards Suggestions and Comments Form*,<sup>16</sup> a SAR proposing a specific project may be submitted to the NERC Reliability Standards Staff at any time.

Each SAR that proposes a “new” or substantially revised Reliability Standard or definition should be accompanied by a technical justification that includes, as a minimum, a discussion of the reliability-related benefits and costs of developing the new Reliability Standard or definition, and a technical foundation document (e.g., research paper) to guide the development of the Reliability Standard or definition. The technical document should address the engineering, planning and operational basis for the proposed Reliability Standard or definition, as well as any alternative approaches considered during SAR development.

The NERC Reliability Standards Staff shall review each SAR and work with the submitter to verify that all required information has been provided. All properly completed SARs shall be submitted to the Standards Committee for action at the next regularly scheduled Standards Committee meeting.

When presented with a SAR, the Standards Committee shall determine if the SAR is sufficiently complete to guide Reliability Standard development and whether the SAR is consistent with this manual. The Standards Committee shall take one of the following actions:

- Accept the SAR.
- Remand the SAR back to the requestor or to NERC Reliability Standards Staff for additional work.
- Reject the SAR. The Standards Committee may reject a SAR for good cause. If the Standards Committee rejects a SAR, it shall provide a written explanation for rejection to the sponsor within ten days of the rejection decision.
- Delay action on the SAR pending one of the following: (i) development of a technical justification for the proposed project; or (ii) consultation with another NERC Committee to determine if there is another approach to addressing the issue raised in the SAR.

If the Standards Committee is presented with a SAR that proposes developing a new Reliability Standard or definition but does not have a technical justification upon which the Reliability Standard or definition

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<sup>15</sup> The SAR form can be downloaded from the Reliability Standards Resources web page.

<sup>16</sup> The *Reliability Standards Suggestions and Comments Form* can be downloaded from the Reliability Standards Resources web page.

## Process for Developing, Modifying, Withdrawing or Retiring a Reliability Standard

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can be developed, the Standards Committee shall direct the NERC Reliability Standards Staff to post the SAR for a 30-day comment period solely to collect stakeholder feedback on the scope of technical foundation, if any, needed to support the proposed project. If a technical foundation is determined to be necessary, the Standards Committee shall solicit assistance from NERC's technical committees or other industry experts to provide that foundation before authorizing development of the associated Reliability Standard or definition.

During the SAR comment process, the drafting team may become aware of potential regional Variances related to the proposed Reliability Standard. To the extent possible, any regional Variances or exceptions should be made a part of the SAR so that if the SAR is authorized, such variations shall be made a part of the draft new or revised Reliability Standard.

If the Standards Committee accepts a SAR, the project shall be added to the list of approved projects. The Standards Committee shall assign a priority to the project, relative to all other projects under development, and those projects already identified in the *Reliability Standards Development Plan* that are already approved for development.

The Standards Committee shall work with the NERC Reliability Standards Staff to coordinate the posting of SARs for new projects, giving consideration to each project's priority.

### **4.2: SAR Posting**

When the Standards Committee determines it is ready to initiate a new project, the Standards Committee shall direct NERC Staff to post the project's SAR in accordance with the following:

- For SARs that are limited to addressing regulatory directives, or revisions to Reliability Standards that have had some vetting in the industry, authorize posting the SAR for a 30-day informal comment period with no requirement to provide a formal response to the comments received.
- For SARs that address the development of new projects or Reliability Standards, authorize posting the SAR for a 30-day formal comment period.

If a SAR for a new Reliability Standard is posted for a formal comment period, the Standards Committee shall appoint a drafting team to work with the NERC Staff coordinator to give prompt consideration of the written views and objections of all participants. The Standards Committee may use a public nomination process to populate the Reliability Standard drafting team, or may use another method that results in a team that collectively has the necessary technical expertise and work process skills to meet the objectives of the project. In some situations, an *ad hoc* team may already be in place with the requisite expertise, competencies, and diversity of views that are necessary to refine the SAR and develop the Reliability Standard, and additional members may not be needed. The drafting team shall address all comments submitted, which may be in the form of a summary response addressing each of the issues raised in comments received, during the public posting period. An effort to resolve all expressed objections shall be made, and each objector shall be advised of the disposition of the objection and the reasons therefore. If the drafting team concludes that there is not sufficient stakeholder support to continue to refine the SAR, the team may recommend that the Standards Committee direct curtailment of work on the SAR.

While there is no established limit on the number of times a SAR may be posted for comment, the Standards Committee retains the right to reverse its prior decision and reject a SAR if it believes continued revisions are not productive. The Standards Committee shall notify the sponsor in writing of the rejection within 10 calendar days.



## Process for Developing, Modifying, Withdrawing or Retiring a Reliability Standard

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If stakeholders indicate support for the project proposed with the SAR, the drafting team shall present its work to the Standards Committee with a request that the Standards Committee authorize development of the associated Reliability Standard.

The Standards Committee, once again considering the public comments received and their resolution, may then take one of the following actions:

- Authorize drafting the proposed Reliability Standard or revisions to a Reliability Standard.
- Reject the SAR with a written explanation to the sponsor and post that explanation.

### **4.3: Form Drafting Team**

When the Standards Committee is ready to have a drafting team begin work on developing a new or revised Reliability Standard, the Standards Committee shall appoint a drafting team, if one was not already appointed to develop the SAR. If the Standards Committee appointed a drafting team to refine the SAR, the same drafting team shall work to develop the associated Reliability Standard.

If no drafting team is in place, then the Standards Committee may use a public nomination process to populate the Reliability Standard drafting team, or may use another method that results in a team that collectively has the necessary technical expertise, diversity of views and work process skills to accomplish the objectives of the project on a timely basis. In some situations, an ad hoc team may already be in place with the requisite expertise, competencies, and diversity of views that are necessary to develop the Reliability Standard, and additional members may not be needed.

The NERC Reliability Standards Staff shall provide one or more members as needed to support the team with facilitation, project management, compliance, legal, regulatory and technical writing expertise and shall provide administrative support to the team, guiding the team through the steps in completing its project. In developing the Reliability Standard, the individuals provided by the NERC Reliability Standards Staff serve as advisors to the drafting team and do not have voting rights but share accountability along with the drafting team members assigned by the Standards Committee for timely delivery of a final draft Reliability Standard that meets the quality attributes identified in NERC's Benchmarks for Excellent Standards. The drafting team members assigned by the Standards Committee shall have final authority over the technical details of the Reliability Standard, while the technical writer shall provide assistance to the drafting team in assuring that the final draft of the Reliability Standard meets the quality attributes identified in NERC's Benchmarks for Excellent Standards.

Once it is appointed by the Standards Committee, the Reliability Standard drafting team is responsible for making recommendations to the Standards Committee regarding the remaining steps in the Reliability Standards process. Consistent with the need to provide for timely standards development, the Standards Committee may decide a project is so large that it should be subdivided and either assigned to more than one drafting team or assigned to a single drafting team with clear direction on completing the project in specified phases. The normally expected timeframes for standards development within the context of this manual are applicable to individual standards and not to projects containing multiple standards. Alternatively, a single drafting team may address the entire project with a commensurate increase in the expected duration of the development work. If a SAR is subdivided and assigned to more than one drafting team, each drafting team will have a clearly defined portion of the work such that there are no overlaps and no gaps in the work to be accomplished.

The Standards Committee may supplement the membership of a Reliability Standard drafting team or provide for additional advisors, as appropriate, to ensure the necessary competencies and diversity of views are maintained throughout the Reliability Standard development effort.

#### **4.4: Develop Preliminary Draft of Reliability Standard, Implementation Plan and VRFs and VSLs**

##### **4.4.1: Project Schedule**

When a drafting team begins its work, either in refining a SAR or in developing or revising a proposed Reliability Standard, the drafting team shall develop a project schedule which shall be approved by the Standards Committee. The drafting team shall report progress to the Standards Committee, against the initial project schedule and any revised schedule as requested by the Standards Committee. Where project milestones cannot be completed on a timely basis, modifications to the project schedule must be presented to the Standards Committee for consideration along with proposed steps to minimize unplanned project delays.

##### **4.4.2: Draft Reliability Standard**

The team shall develop a Reliability Standard that is within the scope of the associated SAR that includes all required elements as described earlier in this manual with a goal of meeting the quality attributes identified in NERC's Benchmarks for Excellent Standards and criteria for governmental approval. The team shall document its justification for the Requirements in its proposed Reliability Standard by explaining how each meets these criteria. The standard drafting team shall document its justification for selecting each reference by explaining how each Requirement fits the category chosen.

##### **4.4.3: Implementation Plan**

As a drafting team drafts its proposed revisions to a Reliability Standard, that team is also required to develop an implementation plan to identify any factors for consideration when approving the proposed effective date or dates for the associated Reliability Standard or Standards. As a minimum, the implementation plan shall include the following:

- The proposed effective date (the date entities shall be compliant) for the Requirements.
- Identification of any new or modified definitions that are proposed for approval with the associated Reliability Standard.
- Whether there are any prerequisite actions that need to be accomplished before entities are held responsible for compliance with one or more of the Requirements.
- Whether approval of the proposed Reliability Standard will necessitate any conforming changes to any already approved Reliability Standards – and identification of those Reliability Standards and Requirements.
- The Functional Entities that will be required to comply with one or more Requirements in the proposed Reliability Standard.

A single implementation plan may be used for more than one Reliability Standard. The implementation plan is posted with the associated Reliability Standard or Standards during the 45 (calendar) day formal comment period and is balloted with the associated Reliability Standard.

##### **4.4.4: Violation Risk Factors and Violation Severity Levels**

The drafting team shall work with NERC Staff in developing a set of VRFs and VSLs that meet the latest criteria established by NERC and Applicable Governmental Authorities. The drafting team shall document its justification for selecting each VRF and for setting each set of proposed VSLs by explaining how its proposed VRFs and VSLs meet these criteria. NERC Staff is responsible for ensuring that the VRFs and VSLs proposed for stakeholder review meet these criteria.

Before the drafting team has finalized its Reliability Standard, implementation plan, and VRFs and VSLs, the team should seek stakeholder feedback on its preliminary draft documents.

### **4.5: Informal Feedback<sup>17</sup>**

Drafting teams may use a variety of methods to collect informal stakeholder feedback on preliminary drafts of its documents, including the use of informal comment periods,<sup>18</sup> webinars, industry meetings, workshops, or other mechanisms. Information gathered from informal comment forms shall be publicly posted. While drafting teams are not required to provide a written response to each individual comment received, drafting teams are encouraged, where possible, to post a summary response that identifies how it used comments submitted by stakeholders. Drafting teams are encouraged, where possible, to reach out directly to individual stakeholders in order to facilitate resolution of identified stakeholder concerns. The intent is to gather stakeholder feedback on a “working document” before the document reaches the point where it is considered the “final draft.”

### **4.6: Conduct Quality Review**

The NERC Reliability Standards Staff shall coordinate a quality review of the Reliability Standard, implementation plan, and VRFs and VSLs in parallel with the development of the Reliability Standard and implementation plan, to assess whether the documents are within the scope of the associated SAR, whether the Reliability Standard is clear and enforceable as written, and whether the Reliability Standard meets the criteria specified in NERC’s Benchmarks for Excellent Standards and criteria for governmental approval of Reliability Standards. The drafting team shall consider the results of the quality review, decide upon appropriate changes, and recommend to the Standards Committee whether the documents are ready for formal posting and balloting.

The Standards Committee shall authorize posting the proposed Reliability Standard, and implementation plan for a formal comment period and ballot and the VRFs and VSLs for a non-binding poll as soon as the work flow will accommodate.

If the Standards Committee finds that any of the documents do not meet the specified criteria, the Standards Committee shall remand the documents to the drafting team for additional work.

If the Reliability Standard is outside the scope of the associated SAR, the drafting team shall be directed to either revise the Reliability Standard so that it is within the approved scope, or submit a request to expand the scope of the approved SAR. If the Reliability Standard is not clear and enforceable as written, or if the Reliability Standard does not meet the specified criteria, the Reliability Standard shall be returned to the drafting team by the Standards Committee with specific identification of any Requirement that is deemed to be unclear or unenforceable as written.

### **4.7: Conduct Formal Comment Period and Ballot**

Proposed new or modified Reliability Standards require a formal comment period where the new or modified Reliability Standard, implementation plan and associated VRFs and VSLs or the proposal to retire a Reliability Standard, implementation plan and associated VRFs and VSLs are posted.

The formal comment period shall be at least 45-days long. Formation of the ballot pool and Ballot of the Reliability Standard take place during this formal 45-day comment period. The intent of the formal

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<sup>17</sup> While this discussion focuses on collecting stakeholder feedback on proposed Reliability Standards and implementation plans, the same process is used to collect stakeholder feedback on proposed new or modified Interpretations, definitions and Variances.

<sup>18</sup> The term “informal comment period” refers to a comment period conducted outside of the ballot process and where there is no requirement for a drafting team to respond in writing to submitted comments.

## Process for Developing, Modifying, Withdrawing or Retiring a Reliability Standard

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comment period(s) is to solicit very specific feedback on the final draft of the Reliability Standard, implementation plan and VRFs and VSLs.

Comments in written form may be submitted on a draft Reliability Standard by any interested stakeholder, including NERC Staff, FERC Staff, and other interested governmental authorities. If stakeholders disagree with some aspect of the proposed set of products, comments provided should explain the reasons for such disagreement and, where possible, suggest specific language that would make the product acceptable to the stakeholder.

### **4.8: Form Ballot Pool**

The NERC Reliability Standards Staff shall establish a ballot pool during the first 30 calendar days of the 45-day formal comment period. The NERC Reliability Standards Staff shall post the proposed Reliability Standard, along with its implementation plan, VRFs and VSLs and shall send a notice to every entity in the Registered Ballot Body to provide notice that there is a new or revised Reliability Standard proposed for approval and to solicit participants for the associated ballot pool. All members of the Registered Ballot Body are eligible to join each ballot pool to vote on a new or revised Reliability Standard and its implementation plan and to participate in the non-binding poll of the associated VRFs and VSLs.

Any member of the Registered Ballot Body may join or withdraw from the ballot pool until the ballot window opens. No Registered Ballot Body member may join or withdraw from the ballot pool once the first ballot starts through the point in time where balloting for that Reliability Standard action has ended. The Director of Standards may authorize deviations from this rule for extraordinary circumstances such as the death, retirement, or disability of a ballot pool member that would prevent an entity that had a member in the ballot pool from eligibility to cast a vote during the ballot window. Any approved deviation shall be documented and noted to the Standards Committee.

### **4.9: Conduct Ballot and Non-binding Poll of VRFs and VSLs<sup>19</sup>**

The NERC Reliability Standards Staff shall announce the opening of the Ballot window and the non-binding poll of VRFs and VSLs. The Ballot window and non-binding poll of VRFs and VSLs shall take place during the last 10 calendar days of the 45-day formal comment period and for the Final Ballot shall be no less than 10 calendar days. If the last day of the ballot window falls on a Saturday or Sunday, the period does not end until the next business day.<sup>20</sup>

The ballot and non-binding poll shall be conducted electronically. The voting window shall be for a period of 10 calendar days but shall be extended, if needed, until a quorum is achieved. During a ballot window, NERC shall not sponsor or facilitate public discussion of the Reliability Standard action under ballot.

There is no requirement to conduct a new non-binding poll of the revised VRFs and VSLs if no changes were made to the associated standard, however if the requirements are modified and conforming changes are made to the associated VRFs and VSLs, another non-binding poll of the revised VRFs and VSLs shall be conducted.

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<sup>19</sup> While RSAWs are not part of the Reliability Standard, they are developed through collaboration of the SDT and NERC Compliance Staff. A non-binding poll, similar to what is done for VRFs and VSLs may be conducted for the RSAW developed through this process to gauge industry support for the companion RSAW to be provided for informational purposes to the NERC Board of Trustees.

<sup>20</sup> Closing dates may be extended as deemed appropriate by NERC Staff.

#### 4.10: Criteria for Ballot Pool Approval

Ballot pool approval of a Reliability Standard requires:

A quorum, which is established by at least 75% of the members of the ballot pool submitting a response; and

A two-thirds majority of the weighted Segment votes cast shall be affirmative. The number of votes cast is the sum of affirmative votes and negative votes with comments. This calculation of votes for the purpose of determining consensus excludes (i) abstentions, (ii) non-responses, and (iii) negative votes without comments.

The following process<sup>21</sup> is used to determine if there are sufficient affirmative votes.

- For each Segment with ten or more voters, the following process shall be used: The number of affirmative votes cast shall be divided by the sum of affirmative and negative votes with comments cast to determine the fractional affirmative vote for that Segment. Abstentions, non-responses, and negative votes without comments shall not be counted for the purposes of determining the fractional affirmative vote for a Segment.
- For each Segment with less than ten voters, the vote weight of that Segment shall be proportionally reduced. Each voter within that Segment voting affirmative or negative with comments shall receive a weight of 10% of the Segment vote.
- The sum of the fractional affirmative votes from all Segments divided by the number of Segments voting<sup>22</sup> shall be used to determine if a two-thirds majority has been achieved. (A Segment shall be considered as “voting” if any member of the Segment in the ballot pool casts either an affirmative vote or a negative vote with comments.)
- A Reliability Standard shall be approved if the sum of fractional affirmative votes from all Segments divided by the number of voting Segments is at least two thirds.

#### 4.11: Voting Positions

Each member of the ballot pool may **only** vote one of the following positions on the Ballot and Additional Ballot(s):

- Affirmative;
- Affirmative, with comment;
- Negative with comments;
- Abstain.

Given that there is no formal comment period concurrent with the Final Ballot, each member of the ballot pool may **only** vote one of the following positions on the Final Ballot:

- Affirmative;
- Negative;<sup>23</sup>
- Abstain.

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<sup>21</sup> Examples of weighted segment voting calculation are posted on the Reliability Standards Resources web page.

<sup>22</sup> When less than ten entities vote in a Segment, the total weight for that Segment shall be determined as one tenth per entity voting, up to ten.

<sup>23</sup> The Final Ballot is used to confirm consensus achieved during the Formal Comment and Ballot stage. Ballot Pool members voting negative on the Final Ballot will be deemed to have expressed the reason for their negative ballot in their own comments or the comments of others during prior Formal Comment periods.

### **4.12: Consideration of Comments**

If a stakeholder or balloter proposes a significant revision to a Reliability Standard during the formal comment period or concurrent Ballot that will improve the quality, clarity, or enforceability of that Reliability Standard, then the drafting team may choose to make such revisions and post the revised Reliability Standard for another 45 calendar day public comment period and ballot. Prior to posting the revised Reliability Standard for an additional comment period, the drafting team must communicate this decision to stakeholders. This communication is intended to inform stakeholders that the drafting team has identified that significant revisions to the Reliability Standard are necessary and should note that the drafting team is not required to respond in writing to comments from the previous ballot. The drafting team will respond to comments received in the last Additional Ballot prior to conducting a Final Ballot.

There is no formal comment period concurrent with the Final Ballot and no obligation for the drafting team to respond to any comments submitted during the Final Ballot.

### **4.13: Additional Ballots**

A drafting team must respond in writing to every stakeholder written comment submitted in response to a ballot prior to conducting a Final Ballot. These responses may be provided in summary form, but all comments and objections must be responded to by the drafting team. All comments received and all responses shall be publicly posted.

However, a drafting team is not required to respond in writing to comments to the previous ballot when it determines that significant changes are needed and an Additional Ballot will be conducted.

### **4.14: Conduct Final Ballot**

When the drafting team has reached a point where it has made a good faith effort at resolving applicable objections and is not making any substantive changes from the previous ballot, the team shall conduct a “Final Ballot.” A non-substantive revision is a revision that does not change the scope, applicability, or intent of any Requirement and includes but is not limited to things such as correcting the numbering of a Requirement, correcting the spelling of a word, adding an obviously missing word, or rephrasing a Requirement for improved clarity. Where there is a question as to whether a proposed modification is “substantive,” the Standards Committee shall make the final determination.

In the Final Ballot, members of the ballot pool shall again be presented the proposed Reliability Standard along with the reasons for negative votes from the previous ballot, the responses of the drafting team to those concerns, and any resolution of the differences.

All members of the ballot pool shall be permitted to reconsider and change their vote from the prior ballot. Members of the ballot pool who did not respond to the prior ballot shall be permitted to vote in the Final Ballot. In the Final Ballot, votes shall be counted by exception only — members on the Final Ballot may indicate a revision to their original vote; otherwise their vote shall remain the same as in their prior ballot.

### **4.15: Final Ballot Results**

There are no limits to the number of public comment periods and ballots that can be conducted to result in a Reliability Standard or interpretation that is clear and enforceable, and achieves a quorum and sufficient affirmative votes for approval. The Standards Committee has the authority to conclude this process for a particular Reliability Standards action if it becomes obvious that the drafting team cannot develop a Reliability Standard that is within the scope of the associated SAR, is sufficiently clear to be enforceable, and achieves the requisite weighted Segment approval percentage.

The NERC Reliability Standards Staff shall post the final outcome of the ballot process. If the Reliability Standard is rejected, the Standards Committee may decide whether to end all further work on the

proposed standard, return the project to informal development, or continue holding ballots to attempt to reach consensus on the proposed standard. If the Reliability Standard is approved, the Reliability Standard shall be posted and presented to the Board of Trustees by NERC management for adoption and subsequently filed with Applicable Governmental Authorities for approval.

### **4.16: Board of Trustees Adoption of Reliability Standards, Implementation Plan and VRFs and VSLs**

If a Reliability Standard and its associated implementation plan are approved by its ballot pool, the Board of Trustees shall consider adoption of that Reliability Standard and its associated implementation plan and shall direct the standard to be filed with Applicable Governmental Authorities for approval. In making its decision, the Board shall consider the results of the balloting and unresolved dissenting opinions. The Board shall adopt or reject a Reliability Standard and its implementation plan, but shall not modify a proposed Reliability Standard. If the Board chooses not to adopt a Reliability Standard, it shall provide its reasons for not doing so.

The board shall consider approval of the VRFs and VSLs associated with a reliability standard. In making its determination, the board shall consider the following:

- The Standards Committee shall present the results of the non-binding poll conducted and a summary of industry comments received on the final posting of the proposed VRFs and VSLs.
- NERC Staff shall present a set of recommended VRFs and VSLs that considers the views of the standard drafting team, stakeholder comments received on the draft VRFs and VSLs during the posting for comment process, the non-binding poll results, appropriate governmental agency rules and directives, and VRF and VSL assignments for other Reliability Standards to ensure consistency and relevance across the entire spectrum of Reliability Standards.

### **4.17: Compliance**

For a Reliability Standard to be enforceable, it shall be approved by its ballot pool, adopted by the NERC Board of Trustees, and approved by Applicable Governmental Authorities, unless otherwise approved by the NERC Board of Trustees pursuant to the NERC Rules of Procedure (*e.g.*, Section 321) and approved by Applicable Governmental Authorities. Once a Reliability Standard is approved or otherwise made mandatory by Applicable Governmental Authorities, all persons and organizations subject to jurisdiction of the ERO will be required to comply with the Reliability Standard in accordance with applicable statutes, regulations, and agreements.

### **4.18: Withdrawal of a Reliability Standard, Interpretation, or Definition**

The term “withdrawal” as used herein, refers to the discontinuation of a Reliability Standard, Interpretation, Variance or definition that has been approved by the Board of Trustees and (1) has not been filed with Applicable Governmental Authorities, or (2) has been filed with, but not yet approved by, Applicable Governmental Authorities. The Standards Committee may withdraw a Reliability Standard, Interpretation or definition for good cause upon approval by the Board of Trustees. Upon approval by the Board of Trustees, NERC Staff will petition the Applicable Governmental Authorities, as needed, to allow for withdrawal. The Board of Trustees also has an independent right of withdrawal that is unaffected by the terms and conditions of this Section.

### **4.19: Retirement of a Reliability Standard, Interpretation, or Definition**

The term “retirement” refers to the discontinuation of a Reliability Standard, Interpretation or definition that has been approved by Applicable Governmental Authorities. A Reliability Standard, Variance or Definition may be retired when it is superseded by a revised version, and in such cases the retirement of

## Process for Developing, Modifying, Withdrawing or Retiring a Reliability Standard

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the earlier version is to be noted in the implementation plan presented to the ballot pool for approval and the retirement shall be considered approved by the ballot pool upon ballot pool approval of the revised version.

Upon identification of a need to retire a Reliability Standard, Variance, Interpretation or definition, where the item will not be superseded by a new or revised version, a SAR containing the proposal to retire a Reliability Standard, Variance, Interpretation or definition will be posted for a comment period and ballot in the same manner as a Reliability Standard. The proposal shall include the rationale for the retirement and a statement regarding the impact of retirement on the reliability of the Bulk Power System. Upon approval by the Board of Trustees, NERC Staff will petition the Applicable Governmental Authorities to allow for retirement.



## Section 5.0: Process for Developing a Defined Term

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NERC maintains a glossary of approved terms, entitled the *Glossary of Terms Used in NERC Reliability Standards*<sup>24</sup> (“Glossary of Terms”). The Glossary of Terms includes terms that have been through the formal approval process and are used in one or more NERC Reliability Standards. Definitions shall not contain statements of performance Requirements. The Glossary of Terms is intended to provide consistency throughout the Reliability Standards.

There are several methods that can be used to add, modify or retire a defined term used in a continent-wide Reliability Standard.

- Anyone can use a Standard Authorization Request (“SAR”) to submit a request to add, modify, or retire a defined term.
- Anyone can submit a Standards Comments and Suggestions Form recommending the addition, modification, or retirement of a defined term. (The suggestion would be added to a project and incorporated into a SAR.)
- A drafting team may propose to add, modify, or retire a defined term in conjunction with the work it is already performing.

### 5.1: Proposals to Develop a New or Revised Definition

The following considerations should be made when considering proposals for new or revised definitions:

- Some NERC Regional Entities have defined terms that have been approved for use in Regional Reliability Standards, and where the drafting team agrees with a term already defined by a Regional Entity, the same definition should be adopted if needed to support a NERC Reliability Standard.
- If a term is used in a Reliability Standard according to its common meaning (as found in a collegiate dictionary), the term shall not be proposed for addition to the Glossary of Terms.
- If a term has already been defined, any proposal to modify or delete that term shall consider all uses of the definition in approved Reliability Standards, with a goal of determining whether the proposed modification is acceptable, and whether the proposed modification would change the scope or intent of any approved Reliability Standards.
- When practical, where NAESB has a definition for a term, the drafting team shall use the same definition to support a NERC Reliability Standard.

Any definition that is balloted separately from a proposed new or modified Reliability Standard or from a proposal for retirement of a Reliability Standard shall be accompanied by an implementation plan.

If a SAR is submitted to the NERC Reliability Standards Staff with a proposal for a new or revised definition, the Standards Committee shall consider the urgency of developing the new or revised definition and may direct NERC Staff to post the SAR immediately, or may defer posting the SAR until a later time based on its priority relative to other projects already underway or already approved for future development. If the SAR identifies a term that is used in a Reliability Standard already under revision by a drafting team, the Standards Committee may direct the drafting team to add the term to the scope of the existing project. Each time the Standards Committee accepts a SAR for a project that was not identified in the *Reliability Standards Development Plan*, the project shall be added to the list of approved projects.

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<sup>24</sup> The latest approved version of the Glossary of Terms is posted on the NERC website on the Standards web page.

### **5.2: Stakeholder Comments and Approvals**

Any proposal for a new or revised definition shall be processed in the same manner as a Reliability Standard and quality review shall be conducted in parallel with this process. Once authorized by the Standards Committee, the proposed definition and its implementation plan shall be posted for at least one formal stakeholder comment period and shall be balloted in the same manner as a Reliability Standard. If a new or revised definition is proposed by a drafting team, that definition may be balloted separately from the associated Reliability Standard.

Each definition that is approved by its ballot pool shall be submitted to the NERC Board of Trustees for adoption and then filed with Applicable Governmental Authorities for approval in the same manner as a Reliability Standard.

## Section 6.0: Processes for Conducting Field Tests and Collecting and Analyzing Data

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While most drafting teams can develop their Reliability Standards without the need to conduct any field tests and without the need to collect and analyze data, some Reliability Standard development efforts may require field tests to analyze data and validate concepts in the development of Reliability Standards.

There are two types of field tests – tests of concepts and tests of requirements.

### **6.1: Field Tests and Data Analysis for Validation of Concepts**

Field tests or collection and analysis of data to validate concepts that support the development of Requirements should be conducted before the SAR for a project is finalized. If an entity wants to test a technical concept in support of a proposal for a new or revised Reliability Standard, the entity should either work with one of NERC's technical committees in collecting and analyzing the data or in conducting the field test, or the entity should submit a SAR with a request to collect and analyze data or conduct a field test to validate the concept prior to developing a new or revised Reliability Standard. The request to collect and analyze data or conduct a field test should include, at a minimum, either the data collection and analysis or field test plan, the implementation schedule, and an expectation for periodic updates of the analysis of the results. If the SAR sponsor has not collected and analyzed the data or conducted the field test, the Standards Committee may solicit support from NERC's technical committees or others in the industry. The results of the data collection and analysis or field test shall then be used to determine whether to add the SAR to the list of projects in the Reliability Standard Development Plan.

If a drafting team finds that it needs to collect and analyze data or conduct a field test of a concept that was not identified when the SAR was accepted, then the Standards Committee may direct the team to withdraw the SAR until the data has been collected and analyzed or until the field test has been conducted and the industry has had an opportunity to review the results for the impact on the scope of the proposed project.

### **6.2: Field Tests and Data Analysis for Validation of Requirements**

If a drafting team wants to conduct a field test or collect and analyze data to validate its proposed Requirements in a Reliability Standard, the team shall first obtain approval from the Standards Committee.<sup>25</sup> Drafting teams are not required to collect and analyze data or to conduct a field test to validate a Reliability Standard.

The request should include at a minimum the data collection and analysis or field test plan, the implementation schedule, and an expectation for periodic updates of the results. When authorizing a drafting team to collect and analyze data or to conduct a field test of one or more Requirements, the Standards Committee may request inputs on technical matters related from NERC's technical committees or industry experts, and may request the assistance of the Compliance Monitoring and Enforcement Program. All data collection and analysis and all field tests shall be concluded and the results incorporated into the Reliability Standard Requirements as necessary before proceeding to the formal comment period and subsequent balloting.

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<sup>25</sup> The Process for Approving Data Collection and Analysis and Field Tests Associated with a Reliability Standard is posted on the Reliability Standards Resources web page.

**6.3: Communication and Coordination for All Types of Field Tests and Data Analyses**

If the conduct of a field test (concepts or Requirements) or data collection and analysis could render Registered Entities incapable of complying with the current Requirements of an approved Reliability Standard that is undergoing revision, the drafting team shall request a temporary waiver from compliance to those Requirements for entities participating in the field test. Upon request, the Standards Committee shall seek approval for the waiver from the Compliance Monitoring and Enforcement Program prior to the approval of the field test or data collection and analysis.

Once a plan for a field test or a plan for data collection and analysis is approved, the NERC Reliability Standards Staff shall, under the direction of the Standards Committee, coordinate the implementation of the field test or data collection and analysis and shall provide official notice to the participants in the field test or data collection of any applicable temporary waiver to compliance with specific noted Requirements. The drafting team conducting the field test shall provide periodic updates on the progress of the field tests or data collection and analysis to the Standards Committee. The Standards Committee has the right to curtail a field test or data collection and analysis that is not implemented in accordance with the approved plan.

The field test plan or data collection and analysis plan, its approval, its participants, and all reports and results shall be publicly posted for stakeholder review on the Reliability Standards web page.

If a drafting team conducts or participates in a field test or in data collection and analysis (of concepts or Requirements), it shall provide a final report that identifies the results and how those results will be used.

## Section 7.0: Process for Developing an Interpretation

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A valid Interpretation request is one that requests additional clarity about one or more Requirements in approved NERC Reliability Standards, but does not request approval as to how to comply with one or more Requirements. A valid Interpretation response provides additional clarity about one or more Requirements, but does not expand on any Requirement and does not explain how to comply with any Requirement. Any entity that is directly and materially affected by the reliability of the North American Bulk Power Systems may request an Interpretation of any Requirement in any continent-wide Reliability Standard that has been adopted by the NERC Board of Trustees. Interpretations will only be provided for Board of Trustees-approved Reliability Standards *i.e.* (i) the current effective version of a Reliability Standard; or (ii) a version of a Reliability Standard with a future effective date.

An Interpretation may only clarify or interpret the Requirements of an approved Reliability Standard, including, if applicable, any attachment referenced in the Requirement being clarified. No other elements of an approved Reliability Standard are subject to Interpretation.

The entity requesting the Interpretation shall submit a *Request for Interpretation* form<sup>26</sup> to the NERC Reliability Standards Staff explaining the clarification required, the specific circumstances surrounding the request, and the impact of not having the Interpretation provided. The NERC Reliability Standards and Legal Staffs shall review the request for interpretation to determine whether it meets the requirements for a valid interpretation. Based on this review, the NERC Standards and Legal Staffs shall make a recommendation to the Standards Committee whether to accept the request for Interpretation and move forward in responding to the Interpretation request.

For example, an Interpretation request may be rejected where it:

- (1) Requests approval of a particular compliance approach;
- (2) Identifies a gap or perceived weakness in the approved Reliability Standard;
- (3) Where an issue can be addressed by an active standard drafting team;
- (4) Where it requests clarification of any element of a Reliability Standard other than a Requirement;
- (5) Where a question has already been addressed in the record;
- (6) Where the Interpretation identifies an issue and proposes the development of a new or modified Reliability Standard, (such issues should be addressed via submission of a SAR);
- (7) Where an Interpretation seeks to expand the scope of a Reliability Standard; or
- (8) Where the meaning of a Reliability Standard is plain on its face.

If the Standards Committee rejects the Interpretation request, it shall provide a written explanation for rejecting the Interpretation to the entity requesting the Interpretation within 10 business days of the decision to reject. If the Standards Committee accepts the Interpretation request, the NERC Standards Staff shall (i) form a ballot pool and (ii) assemble an Interpretation drafting team with the relevant expertise to address the interpretation for approval by the Standards Committee. As soon as practical, the team shall develop a “final draft” Interpretation providing the requested clarity.

Interpretations will be balloted in the same manner as Reliability Standards.

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<sup>26</sup> The *Request for Interpretation* form is posted on the NERC Standards web page.

## Process for Developing an Interpretation

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If stakeholder comments indicate that there is not a consensus for the Interpretation, and the Interpretation drafting team cannot revise the Interpretation without violating the basic expectations outlined above, the Interpretation drafting team shall notify the Standards Committee of its conclusion and may submit a SAR with the proposed modification to the Reliability Standard. The entity that requested the Interpretation shall be notified and the disposition of the Interpretation shall be posted.

If, during its deliberations, the Interpretation drafting team identifies a reliability gap in the Reliability Standard that is highlighted by the Interpretation request, the Interpretation drafting team shall notify the Standards Committee of its conclusion and may submit a SAR with the proposed modification to the Reliability Standard at the same time it provides its proposed Interpretation.

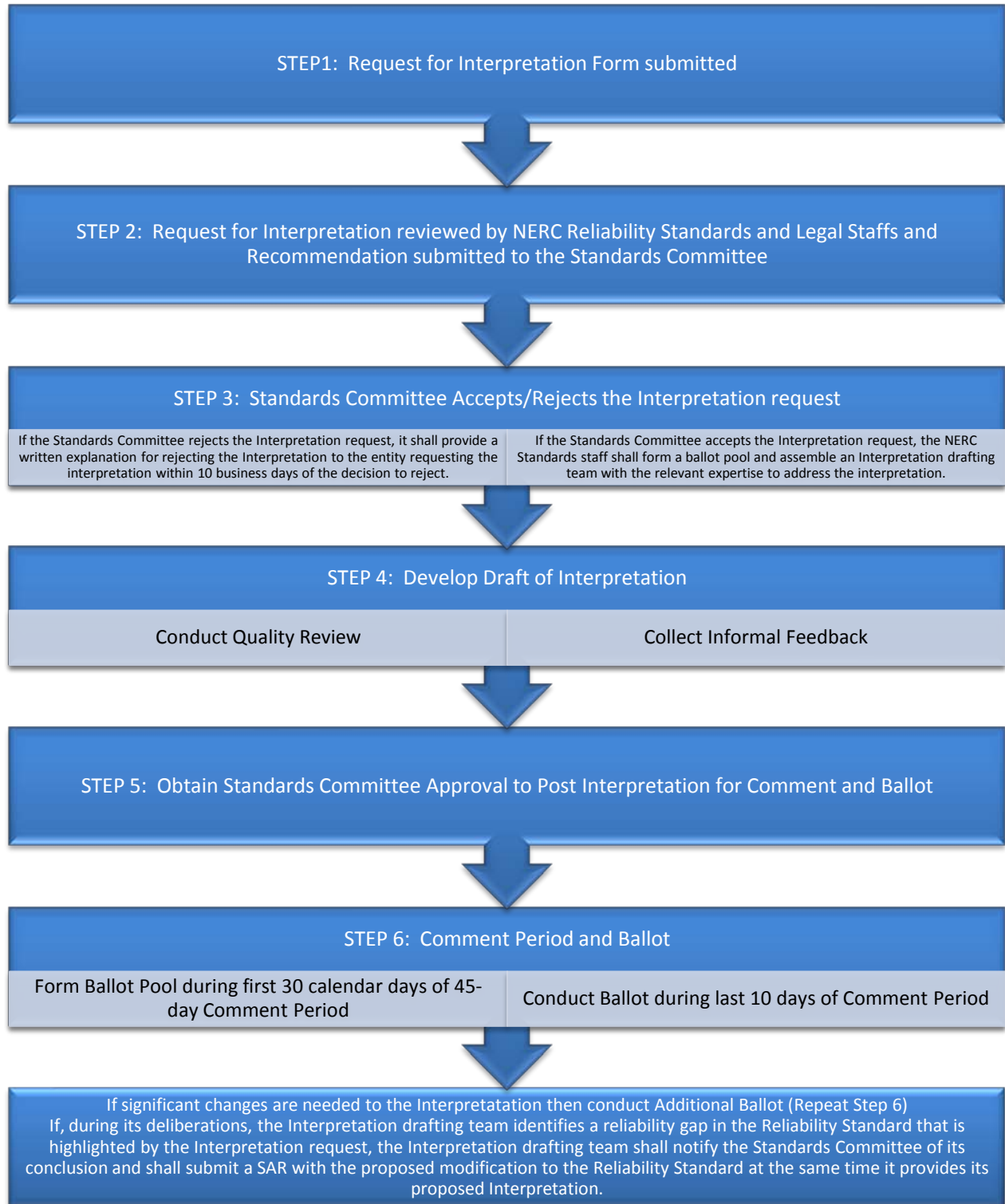
The NERC Reliability Standards and Legal Staffs shall review the final Interpretation to determine whether it has met the requirements for a valid Interpretation. Based on this review, the NERC Standards and Legal Staffs shall make a recommendation to the NERC Board of Trustees regarding adoption.

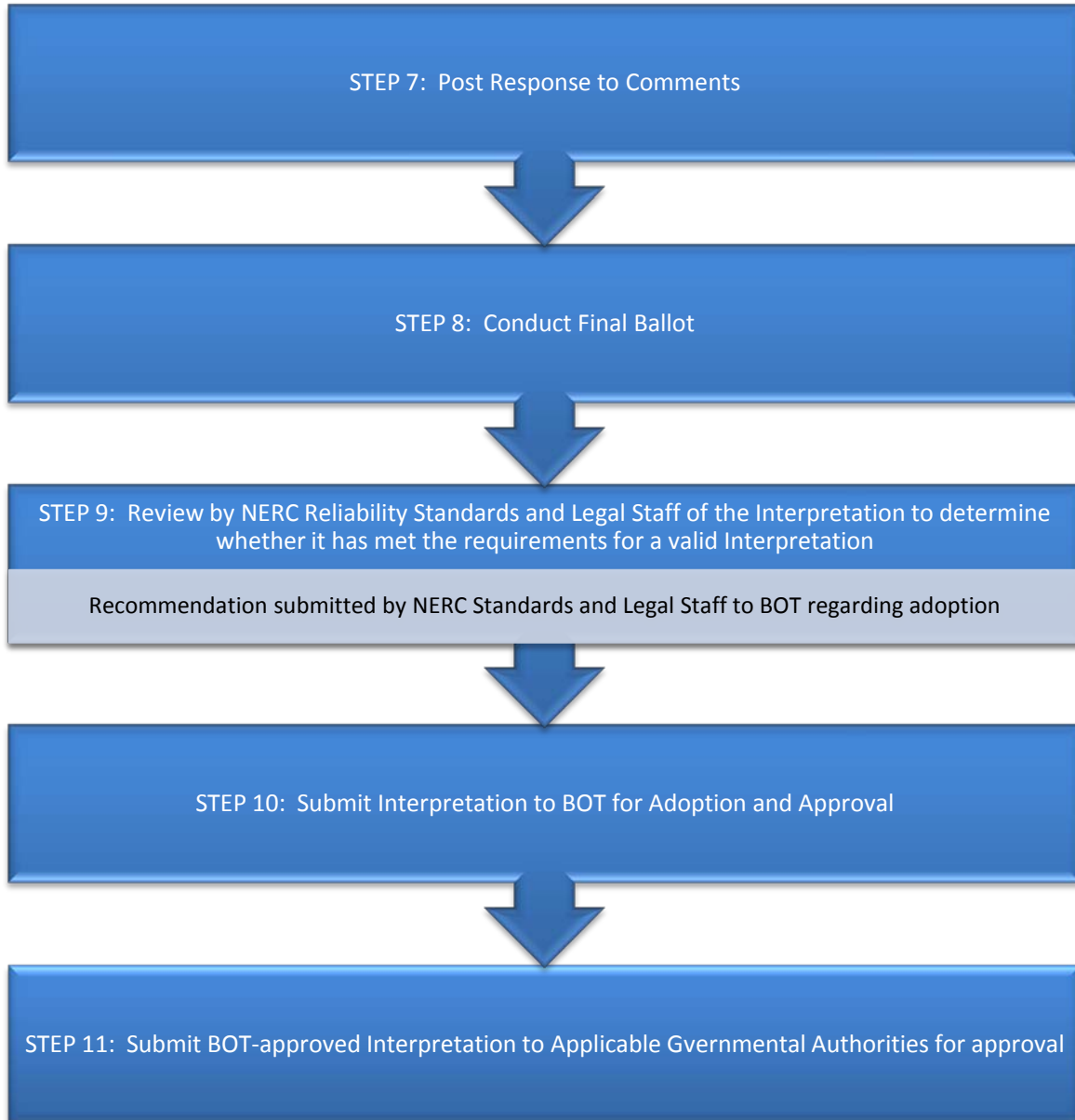
If approved by its ballot pool, the Interpretation shall be forwarded to the NERC Board of Trustees for adoption.<sup>27</sup> If an Interpretation drafting team proposes a modification to a Reliability Standard as part of its work in developing an Interpretation, the Board of Trustees shall be notified of this proposal at the time the Interpretation is submitted for adoption. Following adoption by the Board of Trustees, NERC Staff shall file the Interpretation for approval by Applicable Governmental Authorities and the Interpretation shall become effective when approved by those Applicable Governmental Authorities. The Interpretation shall stand until such time as the Interpretation can be incorporated into a future revision of the Reliability Standard or the Interpretation is retired due to a future modification of the applicable Requirement.

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<sup>27</sup> NERC will maintain a record of all interpretations associated with each standard on the Reliability Standards page of the NERC website.

## Process for Developing an Interpretation





**FIGURE 2: Process for Developing an Interpretation**



## Section 8.0: Process for Appealing an Action or Inaction

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Any entity that has directly and materially affected interests and that has been or will be adversely affected by any procedural action or inaction related to the development, approval, revision, reaffirmation, retirement or withdrawal of a Reliability Standard, definition, Variance, associated implementation plan, or Interpretation shall have the right to appeal. This appeals process applies only to the NERC Reliability Standards processes as defined in this manual, not to the technical content of the Reliability Standards action.

The burden of proof to show adverse effect shall be on the appellant. Appeals shall be made in writing within 30 days of the date of the action purported to cause the adverse effect, except appeals for inaction, which may be made at any time. The final decisions of any appeal shall be documented in writing and made public.

The appeals process provides two levels, with the goal of expeditiously resolving the issue to the satisfaction of the participants.

### **8.1: Level 1 Appeal**

Level 1 is the required first step in the appeals process. The appellant shall submit (to the Director of Standards) a complaint in writing that describes the procedural action or inaction associated with the Reliability Standards process. The appellant shall describe in the complaint the actual or potential adverse impact to the appellant. Assisted by NERC Staff and industry resources as needed, the Director of Standards shall prepare a written response addressed to the appellant as soon as practical but not more than 45 days after receipt of the complaint. If the appellant accepts the response as a satisfactory resolution of the issue, both the complaint and response shall be made a part of the public record associated with the Reliability Standard.

### **8.2: Level 2 Appeal**

If after the Level 1 Appeal the appellant remains unsatisfied with the resolution, as indicated by the appellant in writing to the Director of Standards, the Director of Standards shall convene a Level 2 Appeals Panel. This panel shall consist of five members appointed by the Board of Trustees. In all cases, Level 2 Appeals Panel members shall have no direct affiliation with the participants in the appeal.

The NERC Reliability Standards Staff shall post the complaint and other relevant materials and provide at least 30 days notice of the meeting of the Level 2 Appeals Panel. In addition to the appellant, any entity that is directly and materially affected by the procedural action or inaction referenced in the complaint shall be heard by the panel. The panel shall not consider any expansion of the scope of the appeal that was not presented in the Level 1 Appeal. The panel may, in its decision, find for the appellant and remand the issue to the Standards Committee with a statement of the issues and facts in regard to which fair and equitable action was not taken. The panel may find against the appellant with a specific statement of the facts that demonstrate fair and equitable treatment of the appellant and the appellant's objections. The panel may not, however, revise, approve, disapprove, or adopt a Reliability Standard, definition, Variance or Interpretation or implementation plan as these responsibilities remain with the ballot pool and Board of Trustees respectively. The actions of the Level 2 Appeals Panel shall be publicly posted.

In addition to the foregoing, a procedural objection that has not been resolved may be submitted to the Board of Trustees for consideration at the time the Board decides whether to adopt a particular Reliability Standard, definition, Variance or Interpretation. The objection shall be in writing, signed by an officer of

## Process for Appealing an Action or Inaction

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the objecting entity, and contain a concise statement of the relief requested and a clear demonstration of the facts that justify that relief. The objection shall be filed no later than 30 days after the announcement of the vote by the ballot pool on the Reliability Standard in question.

## Section 9.0: Process for Developing a Variance

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A Variance is an approved, alternative method of achieving the reliability intent of one or more Requirements in a Reliability Standard. No Regional Entity or Bulk Power System owner, operator, or user shall claim a Variance from a NERC Reliability Standard without approval of such a Variance through the relevant Reliability Standard approval procedure for the Variance. Each Variance from a NERC Reliability Standard that is approved by NERC and Applicable Governmental Authorities shall be made an enforceable part of the associated NERC Reliability Standard.

NERC's drafting teams shall aim to develop Reliability Standards with Requirements that apply on a continent-wide basis, minimizing the need for Variances while still achieving the Reliability Standard's reliability objectives. If one or more Requirements cannot be met or complied with as written because of a physical difference in the Bulk Power System or because of an operational difference (such as a conflict with a federally or provincially approved tariff), but the Requirement's reliability objective can be achieved in a different fashion, an entity or a group of entities may pursue a Variance from one or more Requirements in a continent-wide Reliability Standard. It is the responsibility of the entity that needs a Variance to identify that need and initiate the processing of that Variance through the submittal of a SAR<sup>28</sup> that includes a clear definition of the basis for the Variance.

There are two types of Variances – those that apply on an Interconnection-wide basis, and those that apply to one or more entities on less than an Interconnection-wide basis.

### **9.1: Interconnection-wide Variances**

Any Variance from a NERC Reliability Standard Requirement that is proposed to apply to Registered Entities within a Regional Entity organized on an Interconnection-wide basis shall be considered an Interconnection-wide Variance and shall be developed through that Regional Entity's NERC-approved Regional Reliability Standards development procedure.

While an Interconnection-wide Variance may be developed through the associated Regional Reliability Standards development process, Regional Entities are encouraged to work collaboratively with existing continent-wide drafting teams to reduce potential conflicts between the two efforts.

An Interconnection-wide Variance from a NERC Reliability Standard that is determined by NERC to be just, reasonable, and not unduly discriminatory or preferential, and in the public interest, and consistent with other applicable standards of governmental authorities shall be made part of the associated NERC Reliability Standard. NERC shall rebuttably presume that an Interconnection-wide Variance from a NERC Reliability Standard that is developed, in accordance with a Regional Reliability Standards development procedure approved by NERC, by a Regional Entity organized on an Interconnection-wide basis, is just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

### **9.2: Variances that Apply on Less than an Interconnection-wide Basis**

Any Variance from a NERC Reliability Standard Requirement that is proposed to apply to one or more entities but less than an entire Interconnection (*e.g.*, a Variance that would apply to a regional transmission organization or particular market or to a subset of Bulk Power System owners, operators, or users), shall be considered a Variance. A Variance may be requested while a Reliability Standard is under development or a Variance may be requested at any time after a Reliability Standard is approved. Each request for a Variance shall be initiated through a SAR, and processed and approved in the same

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<sup>28</sup> A sample of a SAR that identifies the need for a Variance and a sample Variance are posted as resources on the Reliability Standards Resources web page.

manner as a continent-wide Reliability Standard, using the Reliability Standards development process defined in this manual.

## Section 10.0: Processes for Developing a Reliability Standard Related to a Confidential Issue

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While it is NERC's intent to use its ANSI-accredited Reliability Standards development process for developing its Reliability Standards, NERC has an obligation as the ERO to ensure that there are Reliability Standards in place to preserve the reliability of the interconnected Bulk Power Systems throughout North America. When faced with a national security emergency situation, NERC may use one of the following special processes to develop a Reliability Standard that addresses an issue that is confidential. Reliability Standards developed using one of the following processes shall be called, "special Reliability Standards" and shall not be filed with ANSI for approval as American National Standards.

The NERC Board of Trustees may direct the development of a new or revised Reliability Standard to address a national security situation that involves confidential issues. These situations may involve imminent or long-term threats. In general, these Board directives will be driven by information from the President of the United States of America or the Prime Minister of Canada or a national security agency or national intelligence agency of either or both governments indicating (to the ERO) that there is a national security threat to the reliability of the Bulk Power System.<sup>29</sup>

There are two special processes for developing Reliability Standards responsive to confidential issues – one process where the confidential issue is "imminent," and one process where the confidential issue is "not imminent."

### **10.1: Process for Developing Reliability Standards Responsive to Imminent, Confidential Issues**

If the NERC Board of Trustees directs the immediate development of a new or revised Reliability Standard to address a confidential national security emergency situation, the NERC Reliability Standards Staff shall develop a SAR, form a ballot pool (to vote on the Reliability Standard and its implementation plan) and assemble a slate of pre-defined subject matter experts as a proposed drafting team for approval by the Standards Committee's officers. All members of the Registered Ballot Body shall have the opportunity to join the ballot pool.

### **10.2: Drafting Team Selection**

The Reliability Standard drafting team selection process shall be limited to just those candidates who have already been identified as having the appropriate security clearance, the requisite technical expertise, and either have signed or are willing to sign a strict confidentiality agreement.

### **10.3: Work of Drafting Team**

The Reliability Standard drafting team shall perform all its work under strict security and confidential rules. The Reliability Standard drafting team shall develop the new or revised Reliability Standard and its implementation plan.

The Reliability Standard drafting team shall review its work, to the extent practical, as it is being developed with officials from the appropriate governmental agencies in the U.S. and Canada, under strict security and confidentiality rules.

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<sup>29</sup> The NERC Board may direct the immediate development and issuance of a Level 3 (Essential Action) alert and then may also direct the immediate development of a new or revised Reliability Standard.

**10.4: Formal Stakeholder Comment & Ballot Window**

The draft Reliability Standard and its implementation plan shall be distributed for a formal comment period, under strict confidentiality rules, only to those entities that are listed in the NERC Compliance Registry to perform one of the functions identified in the applicability section of the Reliability Standard and have identified individuals from their organizations that have signed confidentiality agreements with NERC.<sup>30</sup> At the same time, the Reliability Standard shall be distributed to the members of the ballot pool for review and ballot. The NERC Reliability Standards Staff shall not post or provide the ballot pool with any confidential background information.

The drafting team, working with the NERC Reliability Standards Staff, shall consider and respond to all comments, make any necessary conforming changes to the Reliability Standard and its implementation plan, and shall distribute the comments, responses and any revision to the same population as received the initial set of documents for formal comment and ballot.

**10.5: Board of Trustee Actions**

Each Reliability Standard and implementation plan developed through this process shall be submitted to the NERC Board of Trustees for adoption.

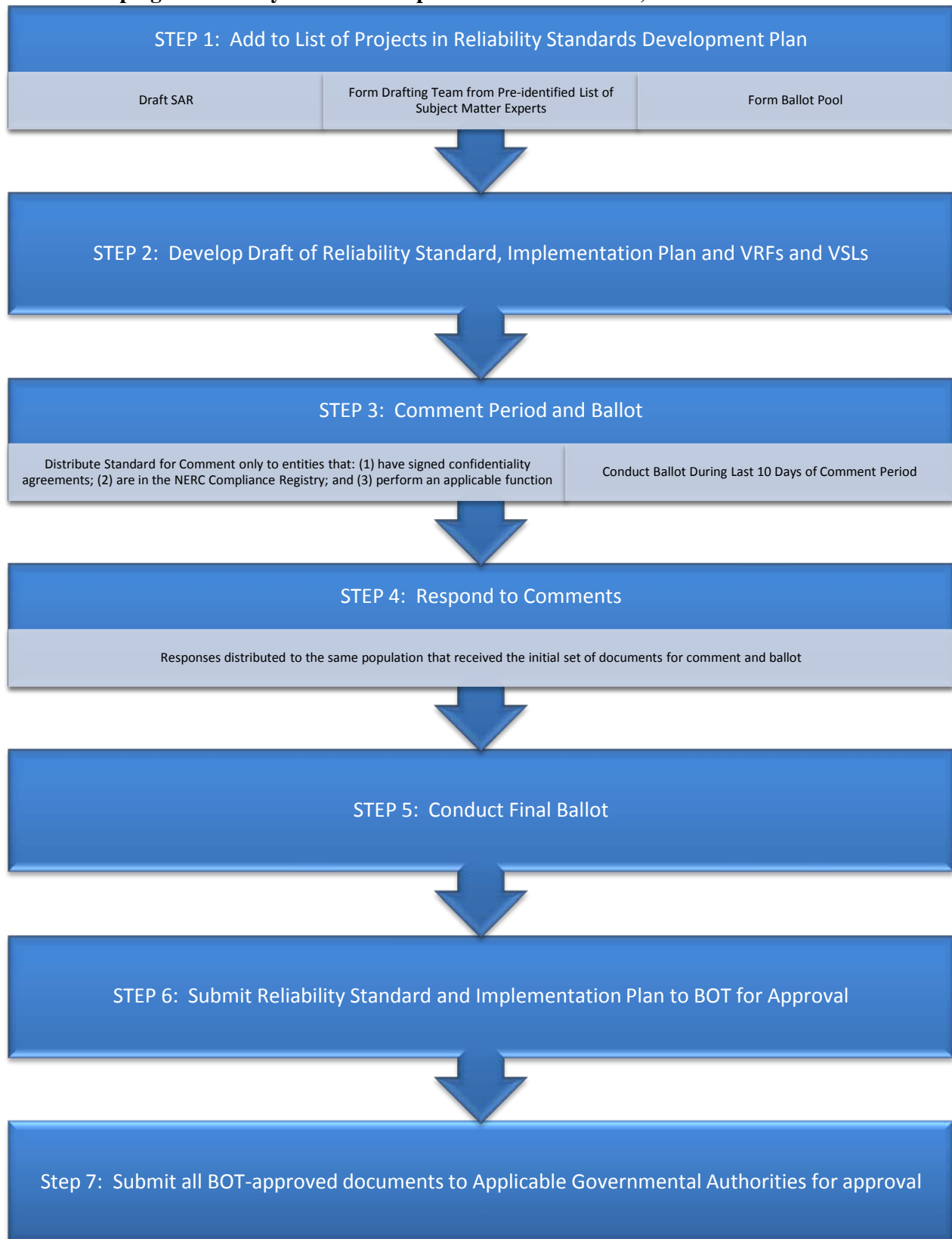
**10.6: Governmental Approvals**

All approved documents shall be filed for approval with Applicable Governmental Authorities.

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<sup>30</sup> In this phase of the process, only the proposed Reliability Standard shall be distributed to those entities expected to comply, not the rationale and justification for the Reliability Standard. Only the special drafting team members, who have the appropriate security credentials, shall have access to this rationale and justification.

**10.7: Developing a Reliability Standard Responsive to an Imminent, Confidential Issue**



**FIGURE 3: Process for Developing a Standard Responsive to an Imminent, Confidential Issue**

### **10.8: Process for Developing Reliability Standards Responsive to Non-imminent, Confidential Issues**

If the NERC Board of Trustees directs the immediate development of a new or revised Reliability Standard to address a confidential national security emergency situation, the NERC Reliability Standards Staff shall develop a SAR, form a ballot pool (to vote on the Reliability Standard and its implementation plan) and assemble a slate of pre-defined subject matter experts as a proposed drafting team for approval by the Standards Committee's officers. All members of the Registered Ballot Body shall have the opportunity to join the ballot pool.

### **10.9: Drafting Team Selection**

The drafting team selection process shall be limited to just those candidates who have already been identified as having the appropriate security clearance, the requisite technical expertise, and either have signed or are willing to sign a strict confidentiality agreement.

### **10.10: Work of Drafting Team**

The drafting team shall perform all its work under strict security and confidential rules. The Reliability Standard drafting team shall develop the new or revised Reliability Standard and its implementation plan.

The drafting team shall review its work, to the extent practical, as it is being developed with officials from the Applicable Governmental Authorities, under strict security and confidentiality rules.

### **10.11: Formal Stakeholder Comment & Ballot Window**

The draft Reliability Standard and its implementation plan shall be distributed for a formal comment period, under strict confidentiality rules, only to those entities that are listed in the NERC Compliance Registry to perform one of the functions identified in the applicability section of the Reliability Standard and have identified individuals from their organizations that have signed confidentiality agreements with NERC.<sup>31</sup> At the same time, the Reliability Standard shall be distributed to the members of the ballot pool for review and ballot. The NERC Reliability Standards Staff shall not post or provide the ballot pool with any confidential background information.

### **10.12: Revisions to Reliability Standard, Implementation Plan and VRFs and VSLs**

The drafting team, working with the NERC Reliability Standards Staff, shall work to refine the Reliability Standard, implementation plan and VRFs and VSLs in the same manner as for a new Reliability Standard following the "normal" Reliability Standards development process described earlier in this manual with the exception that distribution of the comments, responses, and new drafts shall be limited to those entities that are in the ballot pool and those entities that are listed in the NERC Compliance Registry to perform one of the functions identified in the applicability section of the Reliability Standard and have identified individuals from their organizations that have signed confidentiality agreements with NERC.

### **10.13: Board of Trustee Action**

Each Reliability Standard, implementation plan, and the associated VRFs and VSLs developed through this process shall be submitted to the NERC Board of Trustees for adoption.

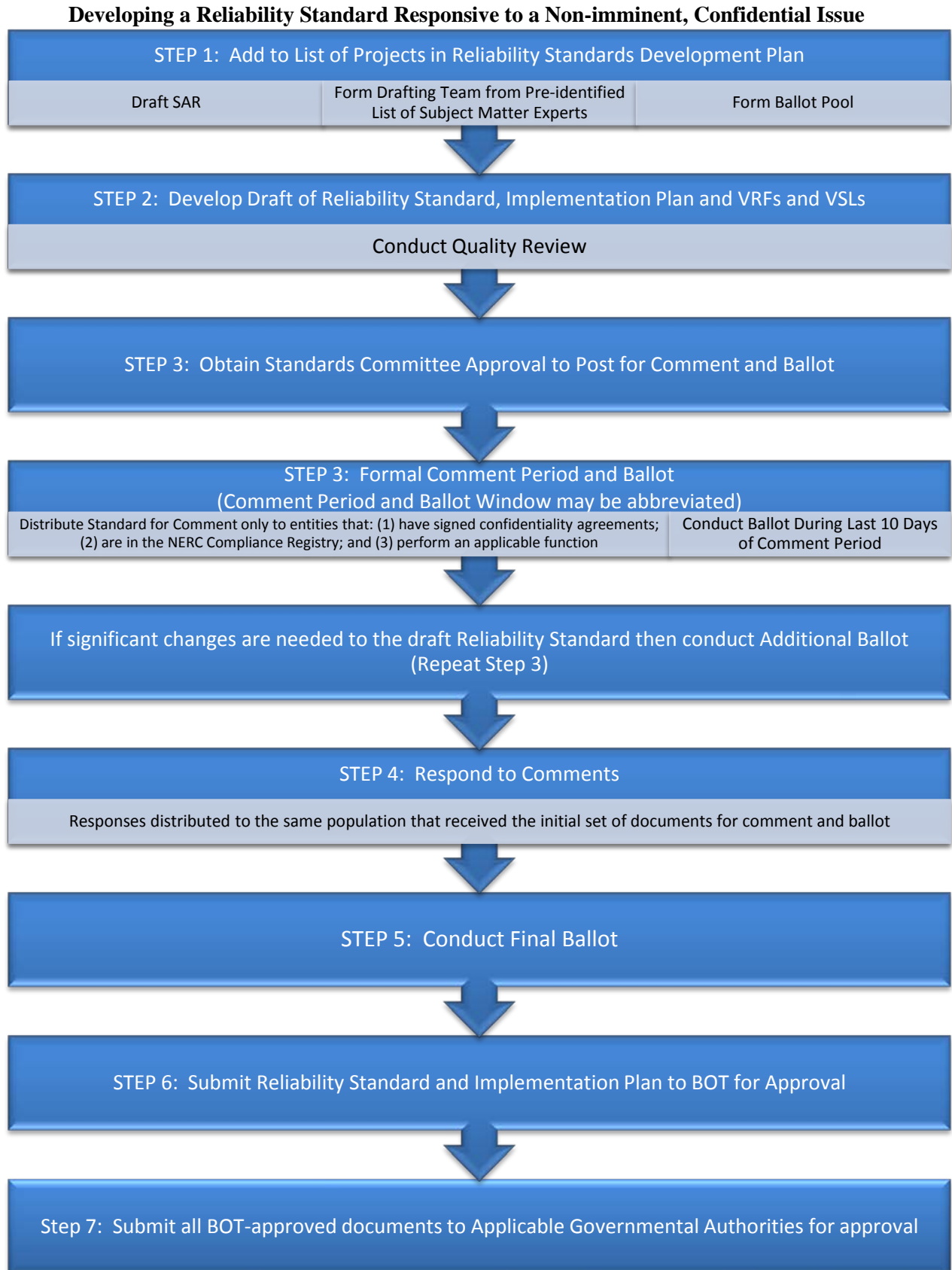
### **10.14: Governmental Approvals**

All BOT-approved documents shall be filed for approval with Applicable Governmental Authorities.

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<sup>31</sup> In this phase of the process, only the proposed Reliability Standard shall be distributed to those entities expected to comply, not the rationale and justification for the Reliability Standard. Only the special drafting team members, who have the appropriate security credentials, shall have access to this rationale and justification.





**FIGURE 4: Developing a Standard Responsive to a Non-Imminent, Confidential Issue**

## Section 11.0: Process for Approving Supporting Documents

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The following types of documents are samples of the types of supporting documents that may be developed to enhance stakeholder understanding and implementation of a Reliability Standard. These documents may explain or facilitate implementation of Reliability Standards but do not themselves contain mandatory Requirements subject to compliance review. Any Requirements that are mandatory shall be incorporated into the Reliability Standard in the Reliability Standard development process.

While most supporting documents are developed by the standard drafting team working to develop the associated Reliability Standard, any entity may develop a supporting document associated with a Reliability Standard.

The Standards Committee shall authorize the posting of all supporting references<sup>32</sup> that are linked to an approved Reliability Standard. Prior to granting approval to post a supporting reference with a link to the associated Reliability Standard, the Standards Committee shall verify that the document has had stakeholder review to verify the accuracy of the technical content. While the Standards Committee has the authority to approve the posting of each such reference, stakeholders, not the Standards Committee, verify the accuracy of the document's contents.

Type of Document	Description
Reference	Descriptive, technical information or analysis or explanatory information to support the understanding and interpretation of a Reliability Standard. A standard reference may support the implementation of a Reliability Standard or satisfy another purpose consistent with the reliability and market interface principles.
Guideline	Recommended process that identifies a method of meeting a Requirement under specific conditions.
Supplement	Data forms, pro forma documents, and associated instructions that support the implementation of a Reliability Standard.
Training Material	Documents that support the implementation of a Reliability Standard.
Procedure	Step-wise instructions defining a particular process or operation. Procedures may support the implementation of a Reliability Standard or satisfy another purpose consistent with the reliability and market interface principles.
White Paper	An informal paper stating a position or concept. A white paper may be used to propose preliminary concepts for a Reliability Standard or one of the documents above.

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<sup>32</sup> The Standards Committee's Procedure for Approving the Posting of Reference Documents is posted on the Reliability Standards Resources web page.

## Section 12.0: Process for Correcting Errata

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From time to time, an error may be discovered in a Reliability Standard. Such errors may be corrected (i) following a Final Ballot prior to Board of Trustees adoption, (ii) following Board of Trustees adoption prior to filing with Applicable Governmental Authorities; and (iii) following filing with Applicable Governmental Authorities. If the Standards Committee agrees that the correction of the error does not change the scope or intent of the associated Reliability Standard, and agrees that the correction has no material impact on the end users of the Reliability Standard, then the correction shall be filed for approval with Applicable Governmental Authorities as appropriate. The NERC Board of Trustees has resolved to concurrently approve any errata approved by the Standards Committee.

## Section 13.0: Process for Conducting Periodic Reviews of Reliability Standards

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All Reliability Standards shall be reviewed at least once every ten years from the effective date of the Reliability Standard or the date of the latest Board of Trustees adoption to a revision of the Reliability Standard, whichever is later. If a Reliability Standard is approved by ANSI as an American National Standard, it shall be reviewed at least once every five years from the effective date of the Reliability Standard or the date of the latest Board of Trustees adoption to a revision of the Reliability Standard, whichever is later.

The *Reliability Standards Development Plan* shall include projects that address this five or ten-year review of Reliability Standards.

- If a Reliability Standard is nearing its five or ten-year review and has issues that need resolution, then the *Reliability Standards Development Plan* shall include a project for the complete review and associated revision of that Reliability Standard that includes addressing all outstanding governmental directives, all approved Interpretations, and all unresolved issues identified by stakeholders.
- If a Reliability Standard is nearing its five or ten-year review and there are no outstanding governmental directives, Interpretations, or unresolved stakeholder issues associated with that Reliability Standard, then the *Reliability Standards Development Plan* shall include a project solely for the “five-year review” of that Reliability Standard.

For a project that is focused solely on the five-year review, the Standards Committee shall appoint a review team of subject matter experts to review the Reliability Standard and recommend whether the American National Standard Institute-approved Reliability Standard should be reaffirmed, revised, or withdrawn. Each review team shall post its recommendations for a 45 calendar day formal stakeholder comment period and shall provide those stakeholder comments to the Standards Committee for consideration.

- If a review team recommends reaffirming a Reliability Standard, the Standards Committee shall submit the reaffirmation to the Board of Trustees for adoption and then to Applicable Governmental Authorities for approval. Reaffirmation does not require approval by stakeholder ballot.
- If a review team recommends modifying, or retiring a Reliability Standard, the team shall develop a SAR with such a proposal and the SAR shall be submitted to the Standards Committee for prioritization as a new project. Each existing Reliability Standard recommended for modification, or retirement shall remain in effect in accordance with the associated implementation plan until the action to modify or withdraw the Reliability Standard is approved by its ballot pool, adopted by the Board of Trustees, and approved by Applicable Governmental Authorities.

In the case of reaffirmation of a Reliability Standard, the Reliability Standard shall remain in effect until the next five or ten-year review or until the Reliability Standard is otherwise modified or withdrawn by a separate action.

## Section 14.0: Public Access to Reliability Standards Information

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### **14.1: Online Reliability Standards Information System**

The NERC Reliability Standards Staff shall maintain an electronic copy of information regarding currently proposed and currently in effect Reliability Standards. This information shall include current Reliability Standards in effect, proposed revisions to Reliability Standards, and proposed new Reliability Standards. This information shall provide a record, for at a minimum the previous five years, of the review and approval process for each Reliability Standard, including public comments received during the development and approval process.

### **14.2: Archived Reliability Standards Information**

The NERC Staff shall maintain a historical record of Reliability Standards information that is no longer maintained online. Archived information shall be retained indefinitely as practical, but in no case less than five years or one complete standard cycle from the date on which the Reliability Standard was no longer in effect. Archived records of Reliability Standards information shall be available electronically within 30 days following the receipt by the NERC Reliability Standards Staff of a written request.

## Section 15.0: Process for Updating Standard Processes

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### **15.1: Requests to Revise the Standard Processes Manual**

Any person or entity may submit a request to modify one or more of the processes contained within this manual. The Standards Committee shall oversee the handling of each request. The Standards Committee shall prioritize all requests, merge related requests, and respond to each sponsor within 30 calendar days.

The Standards Committee shall post the proposed revisions for a 45 (calendar) day formal comment period. Based on the degree of consensus for the revisions, the Standards Committee shall:

- a. Submit the revised process or processes for ballot pool approval;
- b. Repeat the posting for additional inputs after making changes based on comments received;
- c. Remand the proposal to the sponsor for further work; or
- d. Reject the proposal.

The Registered Ballot Body shall be represented by a ballot pool. The ballot procedure shall be the same as that defined for approval of a Reliability Standard, including the use of an Additional Ballot if needed. If the proposed revision is approved by the ballot pool, the Standards Committee shall submit the revised procedure to the Board for adoption. The Standards Committee shall submit to the Board a description of the basis for the changes, a summary of the comments received, and any minority views expressed in the comment and ballot process. The proposed revisions shall not be effective until approved by the NERC Board of Trustees and Applicable Governmental Authorities.

## Section 16.0: Waiver

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While it is NERC's intent to use its ANSI-accredited Reliability Standards development process for developing its Reliability Standards, NERC may need to develop a new or modified Reliability Standard, definition, Variance, or implementation plan under specific time constraints (such as to meet a time constrained regulatory directive) or to meet an urgent reliability issue such that there isn't sufficient time to follow all the steps in the normal Reliability Standards development process.

The Standards Committee may waive any of the provisions contained in this manual for good cause shown, but limited to the following circumstances:

- In response to a national emergency declared by the United States or Canadian government that involves the reliability of the Bulk Electric System or cyber attack on the Bulk Electric System;
- Where necessary to meet regulatory deadlines;
- Where necessary to meet deadlines imposed by the NERC Board of Trustees; or
- Where the Standards Committee determines that a modification to a proposed Reliability Standard or its Requirement(s), a modification to a defined term, a modification to an interpretation, or a modification to a variance has already been vetted by the industry through the standards development process or is so insubstantial that developing the modification through the processes contained in this manual will add significant time delay.

In no circumstances shall this provision be used to modify the requirements for achieving quorum or the voting requirements for approval of a standard.

A waiver request may be submitted to the Standards Committee by any entity or individual, including NERC committees or subgroups and NERC Staff. Prior to consideration of any waiver request, the Standards Committee must provide five business days notice to stakeholders.

Action on the waiver request will be included in the minutes of the Standards Committee. Following the approval of the Standards Committee to waive any provision of the Standard Process Manual, the Standards Committee will report this decision to the Standards Oversight and Technology Committee.<sup>33</sup> Actions taken pursuant to an approved waiver request will be posted on the Standard Project page and included in the next project announcement.

In addition, the Standards Committee shall report the exercise of this waiver provision to the Board of Trustees prior to adoption of the related Reliability Standard, Interpretation, definition or Variance.

Reliability Standards developed as a result of a waiver of any provision of the Standard Processes Manual shall not be filed with ANSI for approval as American National Standards.

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<sup>33</sup> Any entity may appeal a waiver decision or any other procedural decision by the Standards Committee pursuant to Section 8.0 of the NERC Standard Processes Manual.

## Proposed Timeline for the Project 2007-17.3 Standard Drafting Team (SDT)

Anticipated Date	Location	Event
February 2014	-	SC Authorizes SAR for Posting
February 13 – March 14, 2014	-	Post SAR for 30-Day Informal Comment Period
March 31 – April 4, 2014	Atlanta, GA	Project 2007-17.3 SDT Face to Face Meeting to review SAR Comments and start modifications of PRC-005.
May 15, 2014	-	Project 2007-17.3 Industry Webinar
April 14 – May 28, 2014	-	45-Day Comment Period and Ballot
July 7-11, 2014	TBD	Project 2007-17.3 SDT Face to Face Meeting to review and address comments and continue modifications of PRC-005.
August 21, 2014	-	Project 2007-17.3 Industry Webinar
July 21 –September 3, 2014	-	45-Day Comment Period and Ballot
September 15-19, 2014	TBD	Project 2007-17.3 SDT Face to Face Meeting to review and address comments prior to final ballot of PRC-005.
September 29 – October 8, 2014	-	Final Ballot
November 12, 2014	-	NERC Board of Trustees Adoption
December 2014 (Targeted)	-	NERC Files Petition with the Applicable Governmental Authorities



## Standards Authorization Request Form

When completed, email this form to:

[Valerie.Agnew@nerc.net](mailto:Valerie.Agnew@nerc.net)

For questions about this form or for assistance in completing the form, call Valerie Agnew at 404-446-2566.

NERC welcomes suggestions for improving the reliability of the Bulk-Power System through improved Reliability Standards. Please use this form to submit your proposal for a new NERC Reliability Standard or a revision to an existing standard.

### Request to propose a new or a revision to a Reliability Standard

Proposed Standard:	PRC-005-4		
Date Submitted:	2/12/2014		
SAR Requester Information			
Name:	Charles Rogers		
Organization:	Protection System Maintenance Standard Drafting Team		
Telephone:	517-788-0027	E-mail:	<a href="mailto:Charles.Rogers@cmsenergy.com">Charles.Rogers@cmsenergy.com</a>
SAR Type (Check as many as applicable)			
<input type="checkbox"/>	New Standard	<input type="checkbox"/>	Withdrawal of existing Standard
<input checked="" type="checkbox"/>	Revision to existing Standard	<input type="checkbox"/>	Urgent Action

## SAR Information

## Industry Need (What is the industry problem this request is trying to solve?):

The Federal Energy Regulatory Commission, in paragraphs 11-15 of Order No. 758, accepted NERC's proposal 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 FERC's concern; and
2. propose minimum maintenance activities for such devices and maximum maintenance intervals, including the technical basis for each."

NERC is following through on its commitment to "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." FERC also directed NERC to file an informational filing with a schedule for the development of the changes to the standard.

The NERC System Protection and Control Subcommittee has subsequently issued a technical paper entitled "Sudden Pressure Relays and Other Devices that Respond to Non-Electrical Quantities". The SPCS recommended the following guidance to address the concerns stated in FERC Order No. 758: "Modify PRC-005 to explicitly address maintenance and testing of the actuator device of the sudden pressure relay when applied as a protective device that trips a facility described in the applicability section of the Reliability Standard.

- Develop minimum maintenance activities for sudden pressure relays similar to Table 1-1: Protective Relay. Based on the survey results, the SPCS recommends the maximum interval for time-based maintenance programs be 6 years.
- Modify Table 1-5: Control Circuitry Associated With Protective Functions to explicitly include the sudden pressure control circuitry."

In addition to the above need to address sudden pressure relays, during the development of PRC-005-3, several commenters raised concerns that there is no obligation for the Balancing Authority (BA) to provide the essential data (the largest BES generating unit within the BA area, per Applicability section 4.2.6.1 of PRC-005-3) for the responsible entities to implement PRC-005-3. Modifying the Applicability of PRC-005-2 was determined to be outside the scope of the PRC-005-3 SAR; consequently, the issue was placed in the NERC Issues Database for consideration during the development of PRC-005-4, and therefore is set forth in this SAR to ensure it is within its scope.

SAR Information
SAR Information
Industry Need (What is the industry problem this request is trying to solve?):
<p>Also, during the development of NERC Reliability Standard PRC-025-1, a possible inconsistency between that standard and PRC-005-2 was identified regarding the applicability of generator station service transformers. This issue will be considered during the development of PRC-005-4.</p> <p>Additionally, the SDT will review the standard to determine if any modifications are necessary to align the standard with changes made to other NERC Reliability Standards, the BES definition, and any other developments that followed the NERC BOT adoption of PRC-005-2 and PRC-005-3.</p> <p>Finally, NERC staff has requested that possible alternatives to the 24-year record retention period be evaluated by the SDT. During the consideration of PRC-005-2, the Office of Management and Budget requested additional support for the lengthy retention period. Possible solutions include modifying the measures in Section C ‘Measures’ or the evidence retention in Section D ‘Compliance’ of the standard.</p> <p>Modifying the standard as set forth will promote the reliable operation of the Bulk Electric System (BES) by: assuring that sudden pressure relays are properly maintained so they may be expected to perform properly; assuring that the Applicability section of PRC-005-4 accurately reflects the relevant Functional Entities and Facilities; improving consistency with other Reliability Standards and the BES definition.</p> <p>No market interface impacts are anticipated.</p>

SAR Information
Purpose or Goal (How does this request propose to address the problem described above?):
<p>The definition of Protection System may be revised, or a new definition created that describes the relays becoming applicable to the revised standard.</p> <p>The Applicability section of the standard may be modified to: 1) describe explicitly those sudden pressure relays that must be maintained in accordance with the revised standard; 2) include Balancing Authorities; and 3) provide consistency with other Reliability Standards and the BES definition.</p> <p>The tables of minimum maintenance activities and maximum maintenance intervals will be modified or added to include appropriate intervals and activities for sudden pressure relays.</p> <p>The SDT shall consider possible alternatives to the 24-year record retention period in PRC-005-3. Possible solutions include modifying the measures in Section C ‘Measures’ or the evidence retention in Section D ‘Compliance’.</p> <p>The SDT shall consider modifications, as needed, to address any FERC directives that may result from the Commission’s consideration of PRC-005-3, which is pending regulatory approval.</p> <p>Finally, the Supplementary Reference Document (provided as a technical reference for PRC-005-3) should be modified to provide the rationale for the maintenance activities and intervals within the revised standard, as well as to provide application guidance to industry.</p>
Identify the Objectives of the proposed standard’s requirements (What specific reliability deliverables are required to achieve the goal?):
<p>Successful implementation of the revised standard will assure that the sudden pressure relays will perform as needed for the conditions anticipated by those performance requirements.</p>
Brief Description (Provide a paragraph that describes the scope of this standard action.)
<p>The Standard Drafting Team (SDT) shall modify NERC Standard PRC-005-3 to explicitly address the maintenance of sudden pressure relays that trip a facility as described in the Applicability section of the Reliability Standard. The SDT shall also consider changes to the standard that provide consistency and alignment with other Reliability Standards. Additionally, the SDT shall modify the standard to address any directives issued by FERC related to the approval of PRC-005-3.</p>

## SAR Information

Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR. Also provide a justification for the development or revision of the standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the standard action.)

The drafting team shall:

1. Consider revising the title of the standard to appropriately include sudden pressure relays.
2. Consider modifying the Purpose of the standard as necessary to address sudden pressure relays.
3. Consider revising the definition of Protection System, or creating a new definition for the applicable sudden pressure relays.
4. Modify the Applicability section of the standard as necessary.
5. Revise or add requirements as necessary.
6. Modify or create additional tables within the standard to include maximum intervals and minimum activities appropriate for the devices being addressed, with consideration for the technology of the devices and for any condition monitoring that may be in place for those devices.
7. Modify the measures and Violation Severity Levels as necessary to address the modified requirements.
8. Modify Section C 'Measures' or Section D 'Compliance' of the standard, as needed, to address the 24-year record retention issue.
9. Consider modifications as needed to address any FERC directives that may result from the Commission's consideration of PRC-005-3.
10. Revise the implementation elements for PRC-005-2 and PRC-005-3 as needed to assure consistent and systematic implementation.
11. Modify the informative Supplementary Reference Document (provided as a technical reference for PRC-005-3) to provide the rationale for the maintenance activities and intervals within the modified standard, as well as to provide application guidance to industry.

Reliability Functions

The Standard will Apply to the Following Functions (Check each one that applies.)

<input type="checkbox"/> Regional Reliability Organization	Conducts the regional activities related to planning and operations, and coordinates activities of Responsible Entities to secure the reliability of the Bulk Electric System within the region and adjacent regions.
<input type="checkbox"/> Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
<input checked="" type="checkbox"/> Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input type="checkbox"/> Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input type="checkbox"/> Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/> Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
<input type="checkbox"/> Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/> Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input checked="" type="checkbox"/> Transmission Owner	Owns and maintains transmission facilities.
<input type="checkbox"/> Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input checked="" type="checkbox"/> Distribution Provider	Delivers electrical energy to the End-use customer.
<input checked="" type="checkbox"/> Generator Owner	Owns and maintains generation facilities.
<input type="checkbox"/> Generator Operator	Operates generation unit(s) to provide real and reactive power.

Reliability Functions	
The Standard will Apply to the Following Functions (Check each one that applies.)	
<input type="checkbox"/> Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/> Market Operator	Interface point for reliability functions with commercial functions.
<input type="checkbox"/> Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles	
Applicable Reliability Principles (Check all that apply).	
<input checked="" type="checkbox"/>	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
<input checked="" type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Standard comply with all of the following Market Interface Principles?	
1. A reliability standard shall not give any market participant an unfair competitive advantage.	Enter (yes/no) Yes
2. A reliability standard shall neither mandate nor prohibit any specific market structure.	Yes

Reliability and Market Interface Principles	
Does the proposed Standard comply with all of the following Market Interface Principles?	Enter (yes/no)
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard.	Yes
4. A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards.	Yes

Related Standards	
Standard No.	Explanation

Related SARs	
SAR ID	Explanation



Regional Variances	
Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
RFC	
SERC	
SPP	
WECC	

## Consideration of Comments

### Project 2007-17.3 (PRC-005-4) Protection System Maintenance and Testing - Phase 3 (Sudden Pressure Relays)

The Project 2007-17.3 SAR Drafting Team thanks all commenters who submitted comments on the Standard Authorization Request (SAR). These standards were posted for a 30-day public comment period from February 13, 2014 through March 14, 2014. Stakeholders were asked to provide feedback on the standards and associated documents through a special electronic comment form. There were 39 sets of comments, including comments from approximately 110 different people from approximately 78 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

All comments submitted may be reviewed in their original format on the standard's [project page](#).

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Mark Lauby, at 404-446-2560 or at [mark.lauby@nerc.net](mailto:mark.lauby@nerc.net). In addition, there is a NERC Reliability Standards Appeals Process.<sup>1</sup>

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<sup>1</sup> The appeals process is in the Standard Processes Manual: [http://www.nerc.com/comm/SC/Documents/Appendix\\_3A\\_StandardsProcessesManual.pdf](http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf)

## Index to Questions, Comments, and Responses

1. Do you have any specific questions or comments relating to the scope of the proposed SAR? .....	11
2. If you are aware of the need for a regional variance or business practice that should be considered with this phase of the project, please identify it here. ....	25
3. If you have any other comments on this SAR that you haven't already mentioned, please provide them here: .....	29

**The Industry Segments are:**

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Guy Zito	Northeast Power Coordinating Council										X

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC	10
2.	David Burke	Orange and Rockland Utilities Inc.	NPCC	3
3.	Greg Campoli	New York Independent System Operator	NPCC	2
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1
6.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5
8.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
9.	Michael Jones	National Grid	NPCC	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment																		
			1	2	3	4	5	6	7	8	9	10									
10. Mark Kenny	Northeast Utilities	NPCC	1																		
11. Christina Koncz	PSEG Power LLC	NPCC	5																		
12. Helen Lainis	Independent Electricity System Operator	NPCC	2																		
13. Michael Lombardi	Northeast Power Coordinating Council	NPCC	10																		
14. Alan MacNaughton	New Brunswick Power Corporation	NPCC	9																		
15. Bruce Metruck	New York Power Authority	NPCC	6																		
16. Silvia Parada Mitchell	NextEra Energy, LLC	NPCC	5																		
17. Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10																		
18. Robert Pellegrini	The United Illuminating Company	NPCC	1																		
19. Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1																		
20. David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5																		
21. Brian Robinson	Utility Services	NPCC	8																		
22. Ayesha Sabouba	Hydro One Networks Inc.	NPCC	1																		
23. Brian Shanahan	National Grid	NPCC	1																		
24. Wayne Sipperly	New York Power Authority	NPCC	5																		
25. Ben Wu	Orange and Rockland Utilities Inc.	NPCC	1																		
2. Group	Janet Smith	Arizona Public Service Company		X		X		X	X												
No Additional Responses																					
3. Group	Brent Ingebrigtsen	PPL NERC Registered Affiliates		X		X		X	X												
Additional Member	Additional Organization		Region	Segment Selection																	
Charlie Freibert	Louisville Gas and Electric Company and Kentucky Utilities Company		SERC	3																	
Brenda Truhe	PPL Electric Utilities Corporation		RFC	1																	
Annette Bannon	PPL Generation, LLC		RFC	5																	
	PPL Susquehanna, LLC		RFC	5																	
	PPL Montana, LLC		WECC	5																	
Elizabeth Davis	PPL EnergyPlus, LLC		MRO																		
			NPCC																		
			RFC																		
			SERC																		
			SPP																		

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
				WECC									
4.	Group	Joseph DePoorter	MRO NERC Standars Review Forum	X	X	X	X	X	X				
	<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>									
	Alice Ireland	Xcel Energy	MRO	1, 3, 5, 6									
	Chuck Wicklund	Otter Tail Power	MRO	1, 3, 5									
	Dan Inman	Minnkota Public Power	MRO	1, 3, 5, 6									
	Dave Rudolph	Basin Electric Power Cooperative	MRO	1, 3, 5, 6									
	Kayleigh Wilkerson	Lincoln Electric System	MRO	1, 3, 5, 6									
	Jodi Jensen	Western Area Power Administration	MRO	1, 6									
	Joseph DePoorter	Madison Gas & Electric	MRO	3, 4, 5, 6									
	Ken Gollsmith	Alliant Energy	MRO	4									
	Mahmood Safi	Omaha Public Power District	MRO	1, 3, 5, 6									
	Marie Knox	Midcontinent Independent System Operator	MRO	2									
	Mike Brytowski	Great River Energy	MRO	1, 3, 5, 6									
	Randi Nyholm	Minnesota Power	MRO	1, 5									
	Scott Bos	Muscatine Power & Water	MRO	1, 3, 5, 6									
	Scott Nickels	Rochester Public Utilities	MRO	4									
	Terry Harbour	MidAmerican Energy	MRO	1, 3, 5, 6									
	Tom Breene	Wisconsin Public Service	MRO	3, 4, 5, 6									
	Tony Eddleman	Nebraska Public Utilities District	MRO	1, 3, 5									
5.	Group	Louis Slade	Dominion	X		X		X	X				
	<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>									
	Mike Garton	NERC Compliance Policy	MRO	5, 6									
	Randi Heise	NERC Compliance Policy	RFC	5, 6									
	Connie Lowe	NERC Compliance Policy	SERC	1, 3, 5, 6									
	Michael Crowley	Electric Transmission	SERC	1, 3									
	Jeff Bailey	Nuclear		5									
	Chip Humphrey	Power Generation		5									
6.	Group	Robert Rhodes	SPP Standards Review Group		X								

Group/Individual		Commenter		Organization		Registered Ballot Body Segment									
						1	2	3	4	5	6	7	8	9	10
<b>Additional Member</b>		<b>Additional Organization</b>		<b>Region</b>	<b>Segment Selection</b>										
Ryan Einer		Oklahoma Gas & Electric		SPP	1, 3, 5										
Allan George		Sunflower Electric Power Corporation		SPP	1										
Louis Guidry		Cleco Power		SPP	1, 3, 5, 6										
Jonathan Hayes		Southwest Power Pool		SPP	2										
Robert Hirschak		Cleco Power		SPP	1, 3, 5, 6										
Shannon Mickens		Southwest Power Pool		SPP	2										
James Nail		City of Independence, MO		SPP	3										
John Podoba		Edison Marketing & Trading		NA - Not Applicable	NA										
Sean Simpson		Board of Public Utilities, City of McPherson		NA - Not Applicable	NA										
7.	Group	Brandy Spraker		Tennessee Valley Authority						X					
<b>Additional Member</b>		<b>Additional Organization</b>		<b>Region</b>	<b>Segment Selection</b>										
Paul Palmer				SERC	5										
Tony Segovia				SERC	5										
Tom Vandervort				SERC	5										
Lee Thomas				SERC	5										
8.	Group	Colby Bellville		Duke Energy		X		X		X	X				
<b>Additional Member</b>		<b>Additional Organization</b>		<b>Region</b>	<b>Segment Selection</b>										
Doug Hills		Duke Energy		RFC	1										
Lee Schuster		Duke Energy		FRCC	3										
Dale Goodwine		Duke Energy		SERC	5										
Greg Cecil		Duke Energy		RFC	6										
9.	Group	Wayne Johnson		Southern Company - Southern Company Services, Inc.; Alabama Power Company; Georgia Power Company; Mississippi Power Company; Gulf Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing		X		X		X	X				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
No Additional Responses													
10.	Group	Greg Campoli	ISO RTO Council Standards Review Committee		X								
Additional Member		Additional Organization	Region	Segment Selection									
Matt Goldberg		ISONE	NPCC	2									
Cheryl Moseley		ERCOT	ERCOT	2									
Ben Li		IESO	NPCC	2									
Lori Spence		MISO	MRO	2									
Charles Yeung		SPP	SPP	2									
Ali Miremadi		CAISO	WECC	2									
Stephanie Monzon		PJM	RFC	2									
11.	Group	Frank Gaffney	Florida Municipal Power Agency	X		X	X	X	X				
Additional Member		Additional Organization	Region	Segment Selection									
Tim Beyrle		City of New Smyrna Beach	FRCC	4									
Jim Howard		Lakeland Electric	FRCC	3									
Greg Woessner		Kissimmee Utility Authority	FRCC	3									
Lynne Mila		City of Clewiston	FRCC	3									
Cairo Vanegas		Fort Pierce Utility Authority	FRCC	4									
Randy Hahn		Ocala Utility Services	FRCC	3									
Stan Rzad		Keys Energy Services	FRCC	1									
Don Cuevas		Beaches Energy Services	FRCC	1									
Mark Schultz		City of Green Cove Springs	FRCC	3									
12.	Group	Kaleb Brimhall	Colorado Springs Utilities	X		X		X	X				
No Additional Responses													
13.	Group	Jason Marshall	ACES Standards Collaborators						X				
Additional Member		Additional Organization	Region	Segment Selection									
Caleb Muckala		Western Farmers Electric Cooperative	SPP	1, 5									
Ellen Watkins		Sunflower Electric Power Corporation	SPP	1									
Bill Hutchison		Southern Illinois Power Cooperative	SERC	1									



Group/Individual		Commenter		Organization		Registered Ballot Body Segment									
						1	2	3	4	5	6	7	8	9	10
Ginger Mercier		Prairie Power		SERC 3											
Shari Heino		Brazos Electric Power Cooperative		ERCOT 1, 5											
14.	Group	Mike O'Neil		Florida Power & Light		X									
No Additional Responses															
15.	Group	Andrea Jessup		Bonneville Power Administration		X		X		X	X				
<b>Additional Member</b>		<b>Additional Organization Region Segment Selection</b>													
Heather Laslo		SPC Technical Svcs		WECC 1											
16.	Group	Erika Doot		Bureau of Reclamation		X				X					
No Additional Responses															
17.	Individual	Nazra Gladu		Manitoba Hydro		X		X		X	X				
18.	Individual	Thomas Foltz		American Electric Power		X		X		X	X				
19.	Individual	Michael Falvo		Independent Electricity System Operator			X								
20.	Individual	andrew Z. Puszta		American Transmission Company, LLC		X									
21.	Individual	Don Schmit		Nebraska Public Power District		X		X		X					
22.	Individual	Michelle R D'Antuono		Ingleside Cogeneration LP						X					
23.	Individual	Matthew Beilfuss		We Energies				X	X	X					
24.	Individual	Jonathan Meyer		Idaho Power Company		X									
25.	Individual	Lisa Martin		City of Austin dba Austin Energy (AE)		X		X	X	X	X				
26.	Individual	Brett Holland		Kansas City Power & Light		X		X		X	X				
27.	Individual	Richard Vine		California Independent System Operator			X								
28.	Individual	Bill Fowler		City of Tallahassee				X							
29.	Individual	Scott Langston		City of Tallahassee		X									
30.	Individual	Karen Webb		City of Tallahassee - Electric Utility						X					
31.	Individual	Martyn Turner		LCRA Transmission Services Corp		X									
32.	Individual	Chris Scanlon		Exelon		X		X	X	X	X				
33.	Individual	Christina Conway		Oncor Electric Delivery Company LLC		X									

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
34.	Individual	David Jendras	Ameren	X		X		X	X				
35.	Individual	Michael Moltane	ITC	X									
36.	Individual	Bob Thomas	Illinois Municipal Electric Agency				X						
37.	Individual	Catherine Wesley	PJM Interconnection		X								
38.	Individual	Bill Temple	Northeast Utilities	X									

If you support the comments submitted by another entity and would like to indicate you agree with their comments, please select "agree" below and enter the entity's name in the comment section (please provide the name of the organization, trade association, group, or committee, rather than the name of the individual submitter).

**Summary Consideration:**

Organization	Agree	Supporting Comments of "Entity Name"
We Energies	Agree	PJM
California Independent System Operator	Agree	IRC's Standards Review Committee
City of Tallahassee	Agree	FMPA
City of Tallahassee	Agree	FMPA
City of Tallahassee - Electric Utility	Agree	FMPA
Illinois Municipal Electric Agency	Agree	Florida Municipal Power Agency
Colorado Springs Utilities		Florida Municipal Power Agency

1. Do you have any specific questions or comments relating to the scope of the proposed SAR?

Summary Consideration:

Organization	Yes or No	Question 1 Comment
Exelon	No	No, Exelon agrees with the scope.
PPL NERC Registered Affiliates	No	These comments are submitted on behalf of the following PPL NERC Registered Affiliates (“PPL”): Louisville Gas and Electric Company and Kentucky Utilities Company; PPL Electric Utilities Corporation; PPL EnergyPlus, LLC; PPL Generation, LLC; PPL Susquehanna, LLC; and PPL Montana, LLC. The PPL NERC Registered Affiliates are registered in six regions (MRO, NPCC, RFC, SERC, SPP, and WECC) for one or more of the following NERC functions: BA, DP, GO, GOP, IA, LSE, PA, PSE, RP, TO, TOP, TP, and TSP.
MRO NERC Standards Review Forum	No	The scope of the SAR should establish a definition for “functional modification.” Functional modifications require SPS owners to have Regional Entity (RE) review, but RE review teams are not given guidance on what constitutes a functional change. For instance, is a direct replacement of a failed SPS component failure (SEL-321 Relay for SEL-321 Relay) a functional change? How about upgrading a SEL-321 Relay with a SEL-421 Relay with the same logic? Recommend that “functional modification” be added to the SAR.
Arizona Public Service Company	No	
Dominion	No	

Organization	Yes or No	Question 1 Comment
Bonneville Power Administration	No	
Independent Electricity System Operator	No	
American Transmission Company, LLC	No	
Idaho Power Company	No	
LCRA Transmission Services Corp	No	
Oncor Electric Delivery Company LLC	No	
Northeast Power Coordinating Council	Yes	<p>The SAR description assumes that all Sudden Pressure relays that trip equipment do so because such tripping is necessary to support the Reliability of the Bulk Power System. Some entities may include Sudden Pressure relay tripping to decrease equipment damage, while the tripping function, for BPS reliability, is provided by other (possibly multiple) protective relays. In such a case, the maintenance required by the PRC-005 revision would be unnecessary and excessive. Recommend the list of items for consideration of the Drafting Team (page 5) be expanded to include a new Item 2, as follows: 2. Include a requirement that the Sudden Pressure relay owner assess whether the relay trip operation is necessary for the reliability of the Bulk Power System, and document the response. Those Sudden Pressure relays for which the response is YES, are the applicable relays for this Standard.</p>
SPP Standards Review Group	Yes	<p>Regarding the inclusion of the Balancing Authority in the Applicability Section of the standard, the draft SAR is not very clear on how this will be accomplished. Neither is the SAR consistent on the inclusion of the Balancing Authority. Including the Balancing Authority is mentioned in the</p>

Organization	Yes or No	Question 1 Comment
		<p>SAR Information, Industry Need and Purpose or Goal sections but is not specifically mentioned in the Scope or Detailed Description sections. Then again, the Balancing Authority is included in the Applicability Section. If the Balancing Authority is included, it would seem that additional requirements would have to be drafted to cover the specific requirements for the Balancing Authority since none of the existing requirements in PRC-005-3 apply to or relate to Balancing Authority functionality. We suggest that the drafting team clarify how the Balancing Authority applicability will be incorporated into the standard.</p>
Tennessee Valley Authority	Yes	<p>Sudden Pressure Relays operate on an inverse time period and actuate when a sudden change in gas pressure or temperature, depending on configuration, occurs. The possible means for this to happen would be an internal fault (i.e., phase-to-phase short or phase-to-ground short). Therefore, Sudden Pressure Relays do not actuate on electrical quantities at all. If a Sudden Pressure Relay actuating condition was to occur and the relay did not actuate, several other types of protective relay systems that do actuate on electrical quantities already in service and maintained as per PRC-005. Including a Sudden Pressure Relay into the NERC Scope is acceptable if it is the Primary means of Transformer Protection. Otherwise, a Sudden Pressure Relay poses no risk to the Bulk Electric System.</p>
Duke Energy	Yes	<p>We request more detail as to the need to include the Balancing Authority (BA) as an applicable entity to this standard. The data that could be provided by the BA, may already be obtained via Reliability Standards currently in effect. More clarification is needed as to what data the BA would be compelled to provide.</p>
Southern Company - Southern Company Services, Inc.; Alabama Power Company; Georgia Power Company;	Yes	<p>In the development of PRC-005-3, a number of commenters questioned how they would be aware of the largest generator in the Balancing Authority Area. We endorse the addition of an additional requirement for</p>

Organization	Yes or No	Question 1 Comment
Mississippi Power Company; Gulf Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing		Balancing Authorities during the development of PRC-005-4 to require the Balancing Authorities to notify and provide information to Transmission Owners, Generator Owners, and Distribution Providers which identifies the current largest single generating unit in the Balancing Authority Area (described in Applicability 4.2.6), and to notify those entities (within a specified time) when this information changes. Alternatively, this requirement needs to be in a BAL standard. As noted by the Standard Drafting Team in response to a similar comment during the development of PRC-005-3, the SAR for PRC-005-3 did not permit the addition of functional entities to the Applicability section of this standard, and, therefore, the drafting team was unable to make the requested change.
ISO RTO Council Standards Review Committee	Yes	We reiterate that the BA is not needed to be included as a requirement in PRC-005 to assess the need for automatic reclosing to ensure loss of certain generators do not place a balancing authority area into a total loss of gross generation situation (FN #1 of PRC-005-3). The SAR should not stipulate that this requirement be met by BAs and the standards drafting team and industry should be left to decide the best recourse to address FN #1.
Florida Municipal Power Agency	Yes	There is insufficient technical support to justify including sudden pressure relays within the PRC-005 standard. The simple fact is that many transformers do not have sudden pressure relays, and there is no evidence of a sudden pressure relay misoperation contributing to a disturbance; as stated on page 31 of the SPCS report: "(t)here is no operating experience in which misoperation of a pressure switch in response to a system disturbance has contributed to a cascading event". As such, sudden pressure relays are not necessary for operating an interconnected transmission network. From Section 215: "(a)(1) The term 'bulk-power system' means--(A) facilities and control systems necessary for operating an interconnected electric energy transmission network (or any portion thereof); and (B) electric energy from generation facilities needed to

Organization	Yes or No	Question 1 Comment
		<p>maintain transmission system reliability.”Since sudden pressure relays are not necessary, they are not part of the bulk-power system.The purpose of a sudden pressure relay is to detect turn-to-turn failures (or other high non-catastrophic failures) within a transformer winding before more damage is caused and to prevent a catastrophic failure of the transformer. They are not installed for the purpose of detecting catastrophic failures that would otherwise be detected by differential relays or overcurrent relays. Failure of a sudden pressure relay to operate is inconsequential to bulk-power system reliability. Misoperation / overtripping of a sudden pressure relay is also inconsequential to bulk-power system reliability as discussed above. Hence, a standard on sudden pressure relays does not provide for “reliable operation” of the bulk-power system since they are inconsequential to the “reliable operation” of the bulk-power system.Conversely, including sudden pressure relays in the standard will have the perverse effect of discouraging entities from installing them, or removing the ability to trip from those that are in service (alarm only), since they are not needed at all.Instead of including them in standards with associated compliance burdens and associated unintended consequences, guidelines should be developed.</p>
Colorado Springs Utilities	Yes	<p>Sudden pressure relays, which do trip some transformers, are not important in preventing “instability, cascading, or separation.” CSU believes that the inclusion of sudden pressure relays in the NERC Standards will not improve the reliability of the BES, and are outside the FPA Section 215 jurisdiction. The following are some additional notes on this topic:</p> <ul style="list-style-type: none"> <li>o Many transformers are not protected using sudden pressure relays. In fact, due to the sensitivity of sudden pressure relays to vibration, some areas of the country purposefully do not use sudden pressure relays for transformer protection.</li> <li>o Many transformers that are protected using sudden pressure relays use a guarded trip scheme. For example, in order for the sudden pressure relay to trip the transformer there must also be another condition present such as an over current or differential trip.</li> <li>o There is not a</li> </ul>



Organization	Yes or No	Question 1 Comment
		<p>consistent application of sudden pressure relays in the industry, many transformers do not utilize these relays for protection, and no requirements exist to have sudden pressure relays. CSU believes that including them in a standard will discourage their use and/or encourage those that currently use them to remove them from their protection scheme. Sudden pressure relays when applied correctly can be an asset in transformer protection, but are not important in preventing “instability, cascading, or separation.”</p>
<p>ACES Standards Collaborators</p>	<p>Yes</p>	<p>(1) In general, we are supportive of the SAR and commend NERC for the process of utilizing industry expertise to determine what relays that respond to non-electrical quantities should be included in PRC-005 and the associated minimum maintenance activities and maximum maintenance intervals. The Planning Committee report is a thorough and well-reasoned document highlighting what equipment should be included. Use of the technical committee processes was very effective and we encourage NERC to continue utilizing the technical committees for support in the future. (2) We are particularly supportive of the item to address the 24-year data retention issue associated with the 12-year maintenance intervals established in PRC-005-2. We ask that the scope be extended to address data retention for all maintenance intervals to identify what is absolutely necessary to retain. For example, the 6-year and 4-year maintenance intervals will require data retention for 12-year and 8-year periods respectively. This is still too long and is contrary to the direction of the Reliability Assurance Initiative’s effort to reduce data collection burdens. (3) In the SAR information section, we suggest modifying bullet 5 or removing it altogether as it is vague and could be subject to varying interpretations. If it remains, we suggest modifying bullet 5 to clarify that only requirements relevant to the SAR scope will be added to the standard. However, we ultimately think it should be removed because by definition a SAR authorizes the modification, removal or addition of requirements within the scope of the SAR. (4) We disagree with including the issue of</p>

Organization	Yes or No	Question 1 Comment
		<p>requiring BAs to communicate their largest BES generating unit for applicability section 4.2.6.1 in PRC-005-3. Addressing this issue can only result in writing a requirement that meets Paragraph 81 criteria. While we understand communication of this information is necessary for the GO, TO and DP to identify which reclosing relays are subject to PRC-005-3, communication should be handled outside of compliance processes. Any of the responsible entities should be able to gather this information from the BA. If a rogue BA does not cooperate, reference to this standard as a need and potential referral of the BA to the regional entity/NERC for failing to cooperate in meeting reliability regulations should be sufficient motivation to compel action. Furthermore, the threat of civil litigation for causing a third party to be in violation of a standards requirement could be used as further motivation for non-cooperative BAs. The bottom line is that there are alternatives to including this type of requirement in a standard. The vast majority of BAs will be cooperative and the information for many BAs is already well known by the responsible entities. (5) Thank you for the opportunity to comment.</p>
Florida Power & Light	Yes	<p>There are no issues with regard to adding the Sudden Pressure Relay to the scope; however, although the primary focus of the SAR pertains to the inclusion of the Sudden Pressure Relay, there is language in the SAR stating, "definition of Protection System may be revised." More specifically, the drafting team shall consider revising the definition of the Protection System or creating a new definition for the applicable sudden pressure relay. In addition, the SAR states that the applicability of Generator Station Service transformers will be addressed in the SDT as part of PRC-005-4. We should follow the development of these items as they may have an impact to the maintenance tasks. We would also like to get clarification on the applicable type of BES transformer. Is this standard just applicable to generator step-up transformers or does it include auto transformers? If it includes auto transformers, is it just the relay for the main tank or both the main and tap</p>

Organization	Yes or No	Question 1 Comment
		<p>changer compartment? Additionally, there needs to be more specificity as to what would be considered a valid test of the fault pressure. For example, is it permissible to do a go/no go test to verify operation or will the exact pressure pickup have to be recorded similar to a EM relay? This SAR for revision of the PRC-005-4 standard states that the “standard drafting team (SDT) intends to consider changes to the standard that provide consistency and alignment with other reliability standards.” In addressing Sudden Pressure Relays (SPR), this SAR is also touching on an open issue relative to NERC Standard PRC-004-3 (Protection System Misoperation Identification &amp; Correction). For some time applicability of protective relay trips attributable to SPR actuations have been questionable and further clarification has been sought. As such, we recommend that clarification of this nature be provided in this PRC-005-4 revision. We also recommend that similar clarification be included in open SAR reviews for NERC Standard PRC-004-3 (which is also currently undergoing SAR revision.</p>
Bureau of Reclamation	Yes	<p>1) The Bureau of Reclamation (Reclamation) does not support the SAR proposal to include sudden pressure relays to PRC-005. Reclamation believes that more quantitative evidence on risk to the BES is needed to justify the inclusion of sudden pressure relays within the scope of PRC-005. If the project proceeds, Reclamation believes that the SAR should more clearly define which types of sudden pressure relays should fall within the scope of PRC-005. Reclamation believes that the SAR should clearly state that only certain sudden pressure relays that directly trip Bulk Electric System (BES) Elements should fall within the scope of the project. Reclamation believes that PRC-005-4 should only apply to sudden pressure relays “applied on BES Elements at generating plants where the total installed plant capacity is greater than the capacity of the largest generating unit within the Balancing Authority Area.” 2) Reclamation recommends that the SAR propose to update the definition of Protection System (rather than consider an update) if sudden pressure relays will be included in PRC-</p>

Organization	Yes or No	Question 1 Comment
		<p>005. Reclamation believes that this will avoid a strained interpretation of how sudden pressure relays fall within the current definition. Sudden pressure relays do not fall into the current NERC definition of Protection System, which includes protective relays which respond to electrical quantities, communication systems for protective functions, voltage and current sensing devices providing inputs to protective relays, station dc supply associated with protective functions, and control circuitry associated with protective functions. 3) If the project proceeds, Reclamation requests that the SAR identify what types of maintenance or testing for sudden pressure relays may be considered by the drafting team. Reclamation believes that there is limited industry consensus on proper testing of this equipment and what may be within the scope of the project should be articulated in the SAR. 4) Based on the SCPS report, Reclamation is concerned that one purpose of this project appears to be preventing sudden pressure relay misoperations caused by through-fault current rather than ensuring that routine maintenance will keep sudden pressure relays in working order. The SPCS Report explains that “In some applications, such as transformer sudden pressure relays used to detect faults internal to a transformer, the pressure switch may operate due to a through-fault current caused by an external fault.” Reclamation transformer and protection system specialists have not experienced instances where sudden pressure relays have tripped because of through-fault current caused by an external fault. Reclamation would consider this a misoperation because the device would have operated for a fault not within the device's zone of protection. Support for this proposition can be found in A Report to the Substation Protection Subcommittee of the Power System Relay Committee of The IEEE Power Engineering Society (May 2007), which describes a sudden pressure relay blocking scheme that can be used to mitigate exposure to transformers tripping undesirably for high-current external through-faults. If the intent of the addition of sudden pressure relays to</p>

Organization	Yes or No	Question 1 Comment
		<p>PRC-005 is to prevent the misoperation of sudden pressure relays due to through-fault current resulting from an external system fault, Reclamation does not believe that PRC-005 is the appropriate standard to address this issue, but that PRC-004 already addresses this concern. 5) Reclamation requests that the SAR remove reference to clarifying the “possible inconsistency between PRC-025 and PRC-005” regarding generator station service transformers that the project proposes to address. First, the scope of the “possible inconsistency” is not defined in the SAR. Second, Reclamation does not believe that there is an inconsistency between PRC-005 and PRC-025 regarding unit auxiliary transformers. PRC-005 requires testing of certain station service transformers under Facilities section 4.2.5.1, which specifies that the standard applies to “Protection Systems for station service ... transformers connected to the generator bus of generators which are part of the BES, that act to trip the generator either directly or via lockout or tripping auxiliary relays.” PRC-025 requires certain relay settings for station service transformers under Facilities section 3.2.3, which applies to “Unit auxiliary transformers (UAT) that supply overall auxiliary power necessary to keep generating units online.” Reclamation believes that relay testing and relay settings are separate issues. Reclamation believes that the inclusion of this ambiguous issue in the SAR will add confusion to the scope of the project. 6) Reclamation believes that reviewing the standard to determine if any other modifications are necessary due to changes made to other standards or the BES definition could raise a variety of issues that may delay the project. Reclamation recommends that the SAR clarify which issues will be in scope or that a comprehensive review be included in another project. If broader issues mentioned above remain within the scope of the project, Reclamation recommends that the name of the project be changed so that entities do not mistakenly conclude that the project is only focused on sudden pressure relays. 7) Finally, due to the number of ambiguous issues in the</p>

Organization	Yes or No	Question 1 Comment
		SAR, Reclamation requests that NERC post a revised SAR for industry consideration before proceeding with the project.
Manitoba Hydro	Yes	(1) Have “Gas Detector Relay(s)” been considered during the scope of the SAR as “Other Devices” because they function in parallel with the sudden pressure relay whereby the fast gas detection component trips the transformer on a sudden surge of 5psi. (2) SPCS technical report, page 11 - since the SPCS recommends the maximum interval for time-based maintenance programs to be 6 years, how will this standard affect condition-based monitoring approaches to maintenance? Has this been considered?
American Electric Power	Yes	Has the drafting team considered the potential impacts on other standards as a result of changing PRC-005, and potentially the definition of Protection System, in the manner proposed? AEP believes the changes proposed may result in unintended and undesirable consequences to other standards.
Nebraska Public Power District	Yes	Did the survey respondents indicate if the testing of the transformer sudden pressure device and associated protective circuitry corresponded to normal, scheduled transformer maintenance intervals? One of the unintended consequences of testing the sudden pressure device is increasing the number of times a transformer is taken out of service for maintenance. Taking the transformer out of service for another maintenance activity will increase the unavailability of the device, reducing system reliability. It would be beneficial if the testing interval specified for the sudden pressure relay be large enough to all the testing be performed at the same interval as the transformer.
Ingleside Cogeneration LP	Yes	Although Ingleside Cogeneration L.P. (“ICLP”) agrees that the SAR’s scope should be limited to address only sudden pressure relays, we are not sure that the reliability justification is explained sufficiently in the SPCS’ technical

Organization	Yes or No	Question 1 Comment
		<p>write up. There are some very important nuances that the Commission may already understand - but it may affect FERC’s acceptance of the limitation if the reasoning is not air tight. Here are some thoughts that we have: “The sudden loss of pressure in a component can be a result of external stress caused by an electrical incident. The primary scenario that comes to mind is a relay trip caused by electrical arc in transformer windings generated by a sudden change in transformer load. This means that a wide-area Disturbance could be further exacerbated by a coincident transformer failure.” “This is not the case for flame detectors, bearing wear monitors, mechanical condition monitors, atmospheric monitors, density switches, and level switches. These devices sense mechanical stimuli which occur independently of the state of the Bulk Electric System. This means a resultant trip will be single-failure in nature - a condition which is well understood and addressed by Transmission Planners. Furthermore, the TPL standards assure (in a mandatory fashion) that sufficient self-healing is built into the BES to assure that a single contingency event does not affect electric service other than that served directly by the failing device.”</p>
City of Austin dba Austin Energy (AE)	Yes	<p>City of Austin dba Austin Energy (AE) is concerned about including sudden pressure relays (SPRs) in the scope of PRC-005 and asks the SDT to carefully consider whether they have a reliability impact on the BES. Should the SDT deem it appropriate to move forward, AE asks the SDT to ensure the applicability of PRC-005 is limited to SPRs that are installed for the purpose of detecting Faults on BES Elements (lines, buses, transformers, etc.). AE seeks to clarify the exclusion of SPRs associated with distribution transformers or other Elements that are not part of the BES.</p>
Kansas City Power & Light	Yes	<p>Request clarification that this only applies to BES Transformers with a low side voltage greater than 100kv.</p>

Organization	Yes or No	Question 1 Comment
Ameren	Yes	<p>(1) The development of PRC-005-2 already thoroughly addressed the generator station service transformers issue and correctly determined that such transformers are not within applicability. Remove reconsideration of this issue from the PRC-005-4 SAR. (2) As part of your Supplementary Reference modification, we request that the drafting team clarify the Automatic Reclosing control circuitry. Specifically, the answer on pages 78 and 79 “Reclosing applications have many variations, responsible entities will need to verify the applicability of associated supervision/conditional logic and the reclosing relay operation; then verify the conditional logic or that the reclosing relay performs in a manner that does not result in a premature closing command being issued. Some examples of conditions which can result in a premature closing command are: (a) An improper supervision or conditional logic input which provides a false state and allows the reclosing relay to issue an improper close command based on incorrect conditions (i.e. voltage supervision, equipment status, sync window verification); timers utilized for closing actuation or reclosing arming/disarming circuitry which could allow the reclosing relay to issue an improper close command; (b) A reclosing relay output contact failure which could result in a made-up close condition / failure to release condition.” This appears to extend beyond the Table 4-2(a) Maintenance Activity “Verify that Automatic Reclosing, upon initiation, does not issue a premature closing command to the close circuitry”, given the definition of Automatic Reclosing. If the intent is that Device 25 and/or 27 initiating relays in an electromechanical scheme are to be included in addition to the Device 79, please so state. (c) We believe that the SDT has declined specifying Device 79 because it may be embedded within a digital relay with a different device number (we use Device 11, but our setting still specifies the 79 function, so we would include it in our program.) We are seeking clarity to help us and others avoid a potential compliance trap due to misunderstanding.</p>



Organization	Yes or No	Question 1 Comment
ITC	Yes	Regarding the inclusion of the Balancing Authority in the Applicability Section of the standard, the draft SAR is not very clear on how this will be accomplished. Neither is the SAR consistent on the inclusion of the Balancing Authority. Including the Balancing Authority is mentioned in the SAR Information, Industry Need and Purpose or Goal sections but is not specifically mentioned in the Scope or Detailed Description sections. Then again, the Balancing Authority is included in the Applicability Section. If the Balancing Authority is included, it would seem that additional requirements would have to be drafted to cover the specific requirements for the Balancing Authority since none of the existing requirements in PRC-005-3 apply to or relate to Balancing Authority functionality. We suggest that the drafting team clarify how the Balancing Authority applicability will be incorporated into the standard.
PJM Interconnection	Yes	PJM is opposed to the BA being added to the Applicability section of this standard. Including the BA will only be an administrative requirement to provide the largest generating unit and will not improve or strengthen the reliability of the BES. PJM contends that this addition does not support continued progress towards more results-based standards.
Northeast Utilities	Yes	NU supports the SAR and especially supports addressing the issue of including applicability for the Balancing Authority to provide the largest BES generating unit within the BA. This will addresses a deficiency within the existing PRC-005-3 standard.

2. If you are aware of the need for a regional variance or business practice that should be considered with this phase of the project, please identify it here.

**Summary Consideration:**

Organization	Yes or No	Question 2 Comment
Northeast Power Coordinating Council	No	
Arizona Public Service Company	No	
PPL NERC Registered Affiliates	No	
MRO NERC Standars Review Forum	No	
Dominion	No	
SPP Standards Review Group	No	
Tennessee Valley Authority	No	
Southern Company - Southern Company Services, Inc.; Alabama Power Company; Georgia Power Company; Mississippi Power	No	

Organization	Yes or No	Question 2 Comment
Company; Gulf Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing		
Florida Municipal Power Agency	No	
Colorado Springs Utilities	No	
ACES Standards Collaborators	No	
Florida Power & Light	No	
Bonneville Power Administration	No	
Bureau of Reclamation	No	
American Electric Power	No	
Independent Electricity System Operator	No	
American Transmission Company, LLC	No	
Nebraska Public Power District	No	
Idaho Power Company	No	

Organization	Yes or No	Question 2 Comment
City of Austin dba Austin Energy (AE)	No	
Kansas City Power & Light	No	
LCRA Transmission Services Corp	No	
Exelon	No	
Oncor Electric Delivery Company LLC	No	
Ameren	No	
ITC	No	
Northeast Utilities	No	
Duke Energy	Yes	If the addition of Sudden Pressure Relays to Reliability Standard PRC-005 were to require installation of Sudden Pressure Relays onto assets that are currently in service, this would result in substantial rise in capital expenditures. Clarification is needed that entities will not be required to install or re-enable the Sudden Pressure Relays.
Manitoba Hydro	Yes	(1) Our Apparatus Maintenance Department policy is to determine our maintenance based upon the reliability of field equipment. Mandating a maximum maintenance interval without considering the equipment’s estimated condition will fail to improve system reliability. An asset’s condition should be the primary concern when performing maintenance. Manitoba Hydro recommends a 10 year maximum interval for time-based maintenance programs based upon its experience with its particular

Organization	Yes or No	Question 2 Comment
		equipment. Other utilities have found other levels of maintenance to be ideal for their needs, and likely for different reasons. Mandating an interval based on average practices without considering the varied circumstances that led to such practices fails to address the underlying reasons for maintenance decisions. This is a completely inappropriate basis for mandating maintenance policies for utilities across an entire continent.

3. If you have any other comments on this SAR that you haven't already mentioned, please provide them here:

**Summary Consideration:**

Organization	Question 3 Comment
Manitoba Hydro	<p>(1) Replace all instances of the word “standard” with “NERC Reliability Standard”. (2) Page 2 - “BES” is used as an undefined term and then later defined on pg 3. This term should be defined on pg 2. (3) Page 2 - “SPCS” should be defined when it is first referenced on pg 2. (4) Page 3 - “BOT” should be defined when it is first referenced on pg 3. (5) Page 3 and 4 - “STD” is used under the heading “Industry Need” on page 3 and on pg 4 under the heading 1 “Purpose or Goal” as an undefined term. It is then later defined as “Standard Drafting Team” on pg 4 under heading 3 “Brief Description”. The term should be defined when it is first referenced on pg 3. (6) Page 4, Objectives - for clarity, consider replacing the text “perform as needed” with “function as expected”. (7) Page 4, Brief Description - add the word “Reliability” between the words “NERC Standard”. (8) Page 5, Bullet 6 - add parentheses around the “s” in the word “devices”. Also, should “condition monitoring” be changed to “monitoring condition”? (9) Page 5, Bullet 7 - capitalize the word “measures”. (10) Page 5, Point 6 - a reference is made to “maximum intervals and minimum activities”; as this reference is made under the “Detailed Description” heading, it should read “maximum maintenance intervals and minimum maintenance activities” as it is described on pg 4.</p>
SPP Standards Review Group	<p>As indicated in the SPCS report, maintenance and testing of sudden pressure relays may involve removing transformers from service in order to do the testing. This adds a layer of complexity to normal relay maintenance where it is very unusual to have to remove a piece of equipment from service to test its protective relays. It also adds another layer of cost due to the additional requirement of removing the transformer from service, grounding, etc. Also, specialized equipment will be required to perform the testing. We are also concerned that incorporating sudden pressure relays could lead to the inclusion of tripping due to winding temperature, operation of cooling equipment, tripping due to oil level, etc. in PRC-005 which is a stretch when it comes to protecting the BES. These devices are intended to protect a specific piece of equipment and are not</p>

Organization	Question 3 Comment
	specifically intended to maintain the reliability of the BES.
City of Austin dba Austin Energy (AE)	City of Austin dba Austin Energy (AE) requests that the SDT provide a sufficient implementation plan for bringing sudden pressure relays (SPRs) into compliance with PRC-005. AE has historically included SPR testing as part of routine transformer maintenance, but it does not call out the SPR as an individual piece of equipment in its data recording system. AE believes an implementation phase of 4-6 years would be necessary given outage constraints and the need for additional data recording. AE expects many companies will find themselves in this or a more difficult position taking into consideration size and current practice.
ITC	<p>COMMENT 1 Maintenance and testing of sudden pressure relays will involve removing transformers or shunt reactors from service in order to do the testing. This adds challenges to scheduling of this task. Sudden pressure relays are by nature used to help prevent equipment failure based on specific equipment conditions. These conditions are not directly related to protection of the BES as a whole. Their inclusion could also lead to the inclusion of tripping due to winding temperature, operation of cooling equipment, tripping due to oil level, or other equipment-specific measurements which also are used just for protection of a specific piece of equipment, and not specifically intended to maintain the reliability of the BES.</p> <p>COMMENT 2 Due to the nature of Sudden Pressure Relays, SPR, we do not agree that they fall under the same category as the conventional electromechanical relays. We are concerned with maintenance requirements which may be determined by the SDT specifically if a test may be required to check timing points at different rate-of-change of pressure to verify the SPR curves. In the Industry Need of the SAR there is a statement “Based on the survey results, the SPCS recommends the maximum interval for time-based maintenance programs be 6 years”. Please provide these survey results such as how many entities responded, how many SPRs (liquid and/or gas type) they maintain, what testing is performed and the associated interval. Also please answer whether any manufacturers of SPRs were included in the survey or consulted for this recommendation? We ask to please provide the technical justification which was used by analyzing this survey data and lead to this recommendation for a 6 year maximum testing interval of sudden pressure relays.</p>

Organization	Question 3 Comment
Florida Power & Light	Consider adding language to this PRC-005-4 revision noting that “Sudden Pressure Relays (SPR)” may also be referred to as, "Fault Pressure Relays (FPR)" by some entities.
Ingleside Cogeneration LP	ICLP does not agree with the project team’s assertion that the guidelines for PRC-005 require the control circuitry between mechanical sensors and circuit breaker trip coils to be part of a BES Protection System Maintenance Program. Even if the original intent, that circuitry is not appropriately captured in the standard’s requirements or the activity tables. With all the changes that were made in the course of Project 2007-17’s various Phases, it is our belief that this slipped through without sufficient vetting. As such, we would like some assurance that CEAs will not enforce associated DC Control Circuitry with sudden pressure relays - or any mechanical sensing devices for that matter. In our view, the issue is far too complex to allow enforcement to proceed. Once Phase III is complete, all sides will have an opportunity to weigh in; leaving no ambiguity about the intent and language of the requirement.
MRO NERC Standards Review Forum	Per the Draft Five-Year ERO Performance Assessment, NERC states: “(iv) Apply Paragraph 81 criteria and results-based drafting concepts to existing and future Reliability Standards projects”, [on page 25]. The NSRF recommends that this statement be added to the SAR.
Bureau of Reclamation	Reclamation appreciates the System Protection and Control Subcommittee’s work on the Sudden Pressure Relays and Other Devices that Respond to Non-Electrical Quantities Technical Report.
Northeast Utilities	Since PRC-004-4 standard will be addressing several inconsistencies and concerns with the existing PRC-005-3 standard, it is suggested that NERC request that FERC delay ruling on the PRC-005-3 standard until the PRC-004-4 standard is approved by NERC and presented to the committee. This will prevent confusion in the implementation of the PRC-005-3 standard, especially with regards to determining the largest generating unit in the Balancing Authority.
PPL NERC Registered Affiliates	The SAR states that “during the development of NERC Reliability Standard PRC-025-1, a possible inconsistency between that standard and PRC-005-2 was identified regarding the applicability of generator station service transformers. This issue will be considered during the development of PRC-005-4.” PPL agrees that PRC-025-1 contains an inconsistency, in that it applies to equipment



Organization	Question 3 Comment
	<p>that is non-BES (generator station service transformers) and should, therefore, have been out of the scope of this Standard. This is why PPL voted against PRC-025-1, and would strongly oppose any PRC-005 revisions to cover generator station service transformer relays. Future expansion of NERC’s scope should be implemented by revising the BES Definition, not in a piecemeal fashion by extending the regulatory reach of individual Standards.</p>
<p>Independent Electricity System Operator</p>	<p>We generally support the proposed project to address regulatory directives. However, we ask the NERC Standards Committee and the drafting team to consider deferring the launch of this project, or at least the drafting of the revised PRC-005 standard, until after PRC-005-3 (which has been filed with regulatory authorities for approval) has been acted upon. Otherwise, any changes made to PRC-005-3 to arrive at PRC-005-4 may need to be revisited or redone in the event that the regulatory authorities remand or suggest changes to PRC-005-3.</p>
<p>Kansas City Power &amp; Light</p>	<p>We have a safety concern about the difference of testing the sudden pressure relay verses the buchholz relay. Majority of sudden pressure devices are located where they can safely be accessed and does not require a complete clearance of the transformer which also includes applying grounds. The buchholz relay is normally located above the radiators in a location where it is hard to access from the top of the transformer or a bucket truck.</p>
<p>Northeast Power Coordinating Council</p>	<p>We support the proposed project to address regulatory Directives. However, the NERC Standards Committee and the Drafting Team should consider deferring the launch of this project, or at least the drafting of the revised PRC-005 standard, until after PRC-005-3 (which was filed with regulatory authorities Feb. 14, 2014 for approval) has been acted upon. Otherwise, any changes made to PRC-005-3 to arrive at PRC-005-4 may need to be revisited or redone in the event that the regulatory authorities remand or suggest changes to PRC-005-3.</p>

**Additional Responses:**

WECC

Charles Rogers

M. Rogers,

This is Hydro-Quebec TransEnergie's comments to NPCC in order to support the SAR of this project. We think that it is not necessary to have a regional variance for now.

Regards



**Si Truc PHAN, eng.**

**Integrator - Reliability Standards & Operating Procedures**

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We support the SAR.

Here is our comments. Feel free to incorporate to the NERC comments.

We expect the continental standard will supersede the Directory D-3

The type of Sudden Pressure Relay at Hydro-Quebec (and also in Canada at large ) is the type mounted on the Free Breathing transformer type instead of the Sealed transformer generally installed on the US.

Our maintenance period is divided in 2 schedules:

- First, the 6-8 years period concerned the captor (mechanical) of relay because we are able to monitor the operating of relay by tele-metering. The captor is also automatically checked when the transformer is out for maintenance service.
- Second, the part of Control & Protection system (electrical) period of maintenance is based on the NPCC D-3 and it depends to the capacity and type of transformer. Usually it a 8-12 year periods.

Also attached an useful article of Sudden Pressure Relay from WECC to be considered in the SAR.

Hopes this help.



**Si Truc PHAN, eng.**

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END OF REPORT

## Project 2007-17.3 (PRC-005-2) Communications Plan

As of March 25, 2014

### Outreach Opportunities

Below is a table which outlines outreach opportunities for NERC or members of the ad hoc groups or standard drafting teams to provide a quick update to an applicable audience.

Outreach Opportunities Table						
Date	Event	Location	Contact Info/Notes	Presenter	Presentation	Comments
April 7 – 11, 2014	FRCC Compliance Workshop	Tampa, FL	?	TBD	TBD	TBD
April 10-11, 2014	WECC Relay Working Group	Salt Lake City, UT	Randy Spacek	TBD	TBD	
May 6-8, 2014	NERC SPCS	Ft. Worth, TX	Phil Tatro	TBD	TBD	Thre is room on the agenda.
May 13-15, 2014	NPCC Task Force on System Protection	Burlington, VT	George Wegh	TBD	TBD	TBD
May 21 – 22, 2014	TRE Spring 2014 standards and Compliance Workshop	ERCOT Metro Center	?	TBD	TBD	TBD
May 28 – 30, 2014	NPCC Standards and Compliance Workshop	Cooperstown, NY	Guy Zito	TBD	TBD	Al McMeekin will be in attendance if no one from the drafting team is able to make this meeting to present.
September 16 – 18, 2014	ERO Auditor Workshop	Atlanta, GA	Matt Gibbons	TBD	TBD	TBD

**Outreach Opportunities Table**

<b>Date</b>	<b>Event</b>	<b>Location</b>	<b>Contact Info/Notes</b>	<b>Presenter</b>	<b>Presentation</b>	<b>Comments</b>
September 23 – 25, 2014	NERC Standards and Compliance Workshop	Atlanta, GA	Mallory Huggins	TBD	TBD	TBD
September 30 – October 2, 2014	SPP Workshop	Oklahoma City	?	TBD	TBD	TBD
October 22 – 23, 2014	TRE Fall Standards and Compliance Workshop	Houston	?	TBD	TBD	TBD