



NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL

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NERC Reliability Standards Process Manual

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Introduction

Purpose

This manual defines the characteristics of a Reliability Standard of the North American Electric Reliability Council (NERC) and establishes the process for development of consensus for approval, revision, reaffirmation, and withdrawal of such standards. NERC Reliability Standards apply to the reliability planning and operation of bulk electric systems of North America.

Authority

This manual is published by the authority of the NERC Board of Trustees, who shall have the sole authority to modify the manual. The manual may, at the discretion of the Board of Trustees, be filed with regulatory agencies, consistent with the NERC Certificate of Incorporation and Bylaws. A procedure for revising the manual is provided in the section titled Maintenance of Reliability Standards and Process.

Background

NERC is a not-for-profit company formed as a result of the Northeast blackout in 1965 to promote the reliability of the bulk electric systems of North America. NERC comprises ten Regional Reliability Councils that account for virtually all the electricity supplied in the United States, Canada, and a portion of Baja California Norte, Mexico.

NERC works with all segments of the electric industry, including electricity users, to develop standards for the reliable planning and operation of bulk electric systems. Historically, NERC standards were effectively applied on a voluntary basis. The NERC Board of Trustees has established that enforcement of these standards through penalties and sanctions is a necessary step for the continuing reliability of North American bulk electric systems.

While NERC Reliability Standards are intended to promote reliability, they must at the same time accommodate competitive electricity markets. Reliability is a necessity for electricity markets and robust electricity markets can support reliability.

This manual has been developed for implementation while NERC is in a transition state to become the North American Electric Reliability Organization (NAERO). Once reliability legislation is enacted, and as NAERO is formed, this manual may be revised as necessary to incorporate any additional regulatory requirements associated with the development, approval, and implementation of Reliability Standards.

Principles

Need for Guiding Principles

The NERC Board of Trustees has adopted Reliability Principles and Market Interface Principles to define the purpose, scope, and nature of Reliability Standards. As these Principles are fundamental to reliability and the market interface, these Principles provide a constant beacon to guide the development of Reliability Standards. The Board of Trustees may modify these Principles from time to time, as necessary, to adapt its vision for Reliability Standards.

Persons and committees that are responsible for the Reliability Standards process shall consider these Principles in the execution of those duties.

Reliability Principles

NERC Reliability Standards are based on certain Reliability Principles that define the foundation of reliability for North American bulk electric systems. Each Reliability Standard shall enable or support one or more of the Reliability Principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk electric systems. Each Reliability Standard shall also be consistent with all of the Reliability Principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Market Interface Principles

Recognizing that bulk electric system reliability and electricity markets are inseparable and mutually interdependent, all Reliability Standards shall be consistent with the Market Interface Principles. Consideration of the Market Interface Principles is intended to ensure Reliability Standards are written such that they achieve their reliability objective without causing undue restrictions or adverse impacts on competitive electricity markets.

Reliability Standard Definition, Characteristics, and Elements

Definition of a Reliability Standard

A Reliability Standard defines certain obligations or requirements of entities that operate, plan, and use the bulk electric systems of North America. The obligations or requirements must be material to reliability and measurable. Each obligation and requirement shall support one or more of the stated Reliability Principles and shall be consistent with all of the stated Reliability and Market Interface Principles.

Characteristics of a Reliability Standard

Reliability Standards may include standards for the operation and planning of interconnected systems and market interface practices, consistent with the Reliability and Market Interface Principles. The format and process defined by this manual applies to all Reliability Standards.

A Reliability Standard shall have the following characteristics:

- **Material to Reliability** — A Reliability Standard shall be material to the reliability of bulk electric systems of North America. If the reliability of the bulk electric systems could be compromised without a particular standard or by a failure to comply with that standard, then the standard is material to reliability.
- **Measurable** — A Reliability Standard shall establish technical or performance requirements that can be practically measured.

Although Reliability Standards have a common format and process, several types of Reliability Standards may exist, each with a different approach to measurement:

- **Technical standards** related to the provision, maintenance, operation, or state of electric systems will likely contain measures of physical parameters and will often be technical in nature.
- **Performance standards** related to the actions of entities providing for or impacting the reliability of bulk electric systems will likely contain measures of the results of such actions, or the nature of the performance of such actions.
- **Preparedness standards** related to the actions of entities to be prepared for conditions that are unlikely to occur but are critical to reliability will likely contain measures of such preparations or the state of preparedness, but measurement of actual outcomes may occur infrequently or never.

Elements of a Reliability Standard

A Reliability Standard shall consist of the elements shown in the Reliability Standard Template. These elements are intended to apply a systematic discipline in the development and revision of Reliability Standards. This discipline is necessary to achieving standards that are measurable, enforceable, and consistent. The format allows a clear statement of the purpose, requirements, measures, and penalties for non-compliance associated with each standard.

All mandatory requirements of a Reliability Standard shall be within an element of the standard. Supporting documents to aid in the implementation of a standard may be referenced by the standard but are not part of the standard itself. Types of supporting documents are described in a later section of the manual.

Reliability Standard Template

Core Elements of a Reliability Standard

Identification Number	A unique identification number assigned in accordance with a published classification system to facilitate tracking and reference to the standards.
Title	A brief, descriptive phrase identifying the topic of the standard.
Effective Date and Status	The effective date of the standard or, prior to adoption of the standard by the Board of Trustees, the proposed effective date. The status of the standard will be indicated as active or by reference to one of the numbered steps in the standards process.
Purpose	The purpose of the standard. The purpose shall explicitly state what outcome will be achieved by the adoption of the standard. The purpose is agreed to early in the process as a step toward obtaining approval to proceed with the development of the standard. The purpose should link the standard to the relevant Principle(s).
Requirement(s)	Explicitly stated technical, performance, and preparedness requirements. Each requirement identifies who is responsible and what action is to be performed or what outcome is to be achieved. Each statement in the requirements section shall be a statement for which compliance is mandatory. Any additional comments or statements for which compliance is not mandatory, such as background or explanatory information, should be placed in a separate document and referenced. (See Supporting References)
Measure(s)	Each requirement shall be addressed by one or more measurements. Measurements that will be used to assess performance and outcomes for the purpose of determining compliance with the requirements stated above. Each measurement will identify to whom the measurement applies. Each measurement shall be tangible, practical, and as objective as is practical. It is important to realize that the measurements are proxies to assess required performance or outcomes. Achieving the full compliance level of each measurement should be a necessary and sufficient indicator that the requirement was met.
Expected Performance or Outcomes	Defines the expected level of performance or outcomes for each measurement.

NERC's intent is not to submit the Compliance Administration Elements of a standard to ANSI for approval. This footnote clarifies this point.

Compliance Administration Elements¹

Compliance Monitoring Process	<p>Defines for each measure:</p> <ul style="list-style-type: none"> • The specific data or information that is required to measure performance or outcomes. • The entity that is responsible to provide the data or information for measuring performance or outcomes. • The process that will be used to evaluate data or information for the purpose of assessing performance or outcomes. • The entity that is responsible for evaluating data or information to assess performance or outcomes. • The time period in which performance or outcomes is measured,
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¹ While the compliance administration elements are developed and approved in the NERC process along with the core elements of a standard, the compliance administration elements will not be included in any standard submitted to ANSI for approval as an American National Standard.

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	<p>evaluated, and then reset.</p> <ul style="list-style-type: none"> • Measurement data retention requirements and assignment of responsibility for data archiving.
Levels of Non-Compliance	Defines the levels of non-compliance for each measure, typically based on the actual or potential severity of the consequences of non-compliance.
Sanctions	Defines all penalties or sanctions associated with non-compliance, typically based on level of non-compliance and number of offenses.

Supporting Information Elements

Interpretations	Formal interpretations of the Reliability Standard. Interpretations are temporary, as the standard should be revised to incorporate the interpretation.
Supporting References	<p>This section will reference related documents that support implementation of the Reliability Standard, but are not themselves mandatory. Examples include, but are not limited to:</p> <ul style="list-style-type: none"> • Glossary of Terms² • Developmental history of the standard and prior versions • Subcommittee(s) responsible for standard • Notes pertaining to implementation or compliance • Standard Reference • Standard Supplement • Procedure • Practices • Training Reference • Technical Reference • White Paper • Internet links to related information

² Although a Glossary of Terms is listed as a reference item here, the Glossary of Terms associated with Reliability Standards may itself become a standard, subject to the approval process defined by this manual.

Roles in the Reliability Standards Development Process

Nomination, Revision or Withdrawal of a Standard

Any member of NERC, including any member of a Regional Reliability Council, or group within NERC shall be allowed to request that a Reliability Standard be developed, modified, or withdrawn.

Additionally, any person (organization, company, government agency, individual, etc.) who is directly and materially affected by the reliability of North American bulk electric systems shall be allowed to request a Reliability Standard be developed, modified, or withdrawn.

Process Roles

Board of Trustees — The NERC Board of Trustees shall consider for adoption as Reliability Standards the standards that have been approved by a Ballot Pool. Once the Board adopts a Reliability Standard, compliance with the standard will be enforced consistent with the effective date.

Stakeholders Committee — The NERC Stakeholders Committee shall advise the Board of Trustees on Reliability Standards presented for adoption by the Board.

Standards Authorization Committee — The Standards Authorization Committee (SAC) shall consist of two members of each of the Industry Segments in the Registered Ballot Body. The Standards Authorization Committee shall meet at regularly scheduled intervals (either in person, or by other means) to consider which requests for new or revised standards should be assigned for development. The Standards Authorization Committee will manage the standards development process.

Registered Ballot Body — The Registered Ballot Body comprises all entities that:

1. Qualify for one of the Industry Segments approved by the Board of Trustees³, and
2. Are registered with NERC as potential ballot participants in the voting on standards, and
3. Are current with any designated fees.

Each member of the Registered Ballot Body is eligible to participate in the voting process (and Ballot Pool) for each Standards Action.

Ballot Pool — Each Standards Action has its own Ballot Pool formed of interested members of the Registered Ballot Body. The Standards Ballot Pool comprises those members of the Registered Ballot Body that respond to a pre-ballot survey for that particular Standards Action.

The Ballot Pool will ensure, through its vote, the need for and technical merits of a proposed Standards Action and the appropriate consideration of views and objections received during the development process. The Ballot Pool votes to approve each Standards Action.

Standards Process Manager — The Reliability Standards process shall be administered by a Standards Process Manager. The Standards Process Manager is responsible for ensuring that the development and revision of standards is in accordance with this manual. The Standards Process Manager works to ensure

³ Appendix B contains a description of the latest version of the Industry Segments approved by the Board of Trustees.

the integrity of the process and consistency of quality and completeness of the Reliability Standards. The Standards Process Manager facilitates all steps in the process.

Standards Process Staff — NERC staff will assist the SAR Drafting Teams and Standards Drafting Teams.

Subcommittees, Working Groups, and Task Forces — The subcommittees, working groups, and task forces within NERC serve an active role in the standards process:

- Initiate Standards Actions by developing SARs
- Post comments (views and objections) to Standards Actions
- Participate on Standard Drafting Teams
- Assist in the implementation of approved standards
- Serve as industry spokespersons by encouraging others within their NERC Region and Industry Segment to participate in the standards development process
- Serve as industry monitors to assess the impact of a standard's implementation
- Provide technical oversight to changing industry conditions
- Identify the need for new standards

NERC and Regional Reliability Council Members — The members of NERC and the Regional Reliability Councils may initiate new or revised standards and may comment on proposed standards.

Requester — A Requester is any person (organization, company, government agency, individual, etc.) that submits a complete request for development, revision, or withdrawal of a standard. Any person that is directly and materially affected by an existing standard or the need for a new standard may submit a request for a new standard or revision to a standard.

Compliance Enforcement Program — The mission of the NERC Compliance Enforcement Program is to manage and enforce compliance with NERC Reliability Standards. The development of a Reliability Standard, in particular the measures and compliance administration portions of the standard, shall have direct input from the Compliance Enforcement Program. Field testing will also be managed and coordinated with the Compliance Program. The Compliance Program Director and appropriate working groups shall provide inputs and comments during the standards development process to ensure the measures will be effective and other aspects of the Compliance Enforcement Program can be practically implemented.

SAR Drafting Team — A small team of technical experts assigned to a SAR, that:

- Assists in refining the SAR
- Considers and responds to comments
- Participates in industry forums to help build consensus on the SAR

Standard Drafting Team — A small team of technical experts, approved by the Standards Authorization Committee, that:

- Develops the details of the standard
- Considers and responds to comments
- Participates in industry forums to help build consensus on posted draft standards

Reliability Standards Consensus Development Process

Overview

The process for developing and approving Reliability Standards is generally based on the procedures of the American National Standards Institute (ANSI) and other standards setting organizations in the United States and Canada (see page 18 for diagram). The NERC process has the following characteristics:

- **Due process** — Any person with a direct and material interest has a right to participate by: a) expressing an opinion and its basis, b) having that position considered, and c) appealing if adversely affected.
- **Openness** — Participation is open to all persons who are directly and materially affected by North American bulk electric system reliability. There shall be no undue financial barriers to participation. Participation shall not be conditional upon membership in NERC or any organization, and shall not be unreasonably restricted on the basis of technical qualifications or other such requirements.
- **Balance** — The NERC standards development process shall have a balance of interests and shall not be dominated by any single interest category.

The NERC process is intended to develop consensus, first on the need for the standard, then on the standard itself. The process includes the following key elements:

- **Nomination of a proposed standard, revision to a standard, or withdrawal of a standard** using a Standard Authorization Request (SAR).
- **Public posting of the SAR** to allow all parties to review and provide comments on the need for the proposed standard and the expected outcomes and impacts from implementing the proposed standard. Notice of standards shall provide an opportunity for participation by all directly and materially affected persons.
- **Review of the public comments** in response to the SAR and prioritization of proposed standards, leading to the authorization to develop standards for which there is a consensus-based need.
- **Assignment of teams** to draft the new or revised standard.
- **Drafting of the standard.**
- **Public posting of the draft standard** to allow all parties to review and provide comments on the draft standard. At this point the need for the standard has been established and comments should focus on aspects of the draft standard itself.
- **Field testing of the draft standard** and measures. The need and extent of field testing shall be determined in the authorization process considering the recommendation of the NERC Compliance Program Director. Field testing may be industry-wide or may consist of one or more lesser scale demonstrations. Field testing should be cost effective and practical, yet sufficient to validate the requirements, measures, measurement processes, and other elements of the standard necessary to implement the Compliance Program. For some standards and their associated measures, field testing may not be appropriate, such as those measures that consist of administrative reports.
- **Formal balloting of the standard** for approval by the Ballot Pool, using the NERC Weighted Segment Voting Model.

- **Re-ballot to consider specific comments** by those submitting comments with negative votes.
- **Adoption by the Board of Trustees.**
- **An appeals mechanism** as appropriate for the impartial handling of substantive and procedural complaints regarding action or inaction related to the standards process.

The first three steps in the process serve to establish consensus on the need for the standard.

Step 1 — Request to Develop a Standard or Revise an Existing Standard

Requests to develop, revise, or withdraw⁴ a Reliability Standard shall be submitted to the Standards Process Manager by completing a Standard Authorization Request (SAR). The SAR is a description of the new or revised standard along with a proposed implementation plan. The SAR provides sufficiently descriptive detail to clearly define the scope of the standard. The SAR also states the purpose of the standard. A needs statement will provide the 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. Appendix A provides a sample of the information in a SAR. The Standards Process Manager shall maintain this form and make it available electronically.

Any person or entity directly or materially affected by an existing standard or the need for a new or revised standard may initiate a SAR.

The Requester will submit the SAR to the Standards Process Manager electronically and the Standards Process Manager will electronically acknowledge receipt of the SAR. The Standards Process Manager will assist the submitting party in developing the SAR and verify that the SAR is in compliance with this manual.

The Standards Process Manager shall forward all properly completed SARs to the Standards Authorization Committee. The Standards Authorization Committee shall meet at established intervals to review all pending SARs. The frequency of this review process will depend on workload, but in no case shall a properly completed SAR wait for Standards Authorization Committee action more than 60 days from the date of receipt. The Standards Authorization Committee, guided by the Reliability and Market Interface Principles, may take one of the following actions:

- Remand the SAR back to the Standards Process Manager for additional work. In this case, the Standards Process Manager may request additional information for the SAR from the Requester.
- Accept the SAR as a candidate for a new or revised standard. If the Standards Authorization Committee accepts a SAR as a candidate for a new or revised standard, it will assign a SAR Drafting Team to provide technical support and analysis of comments for that SAR, and assist the Requester and the Standards Process Manager in remaining steps of the process.
- Reject the SAR. If the Standards Authorization Committee rejects a SAR, it will provide a written explanation for rejection to the Requester within 30 days of the rejection decision.

If the Standards Authorization Committee rejects a SAR, the Requester may file an appeal following the Appeals Process.

⁴ Actions in the remaining steps of the standards process apply to proposed new standards, revisions to existing standards, or withdrawal of existing standards, unless explicitly stated otherwise.

The status of SARs shall be tracked electronically. The SAR and its status shall be posted for public viewing including any actions or decisions.

Step 2 — Solicit Public Comments on the SAR

Once a SAR has been accepted by the Standards Authorization Committee as a candidate for the development of a new or revised standard, the SAR will be posted at the next regular posting interval for the purpose of soliciting public comments. SARs will be posted and publicly noticed at regularly scheduled intervals. Establishment of a regular time for posting of SARs will allow interested parties to know when to expect the next set of SARs.

Comments on the SARs will be accepted for a 30-day period from the notice of posting. Comments will be accepted on-line using an Internet-based application. The Standards Process Manager will provide a copy of the comments to the Requester and appointed team. Based on the comments, the Requester may decide to submit the SAR for authorization, to withdraw the SAR, or to revise and resubmit it to the Standards Process Manager for another posting in the next available comment period. The appointed team shall assist in the review of comments, the decision to continue or not, and any necessary revisions for another posting.

The Requester, assisted by the SAR Drafting Team, shall give prompt consideration to the written views and objections of all participants. 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. In addition, each objector shall be informed that an appeals process exists within the NERC standards process.

While there is no established limit on the number of times a SAR may be posted for comment, the Standards Authorization Committee retains the right to reverse its prior decision and reject a SAR if it believes continued revisions are not productive. Once again, the Standards Authorization Committee shall notify the Requester in writing of the rejection following the Appeals Process. During the SAR comment process, the Requester may become aware of potential Regional differences related to the proposed standard. To the extent possible, any Regional differences or exceptions should be made a part of the SAR so that, if the SAR is authorized, such variations will be made a part of the draft new or revised standard.

Step 3 — Solicit Participants for Ballot Pool and Standard Drafting Team

Ballot Pool

Once a SAR has been accepted by the Standards Authorization Committee as a candidate for a Standards Action, the Standards Process Manager shall send a survey to every entity in the Registered Ballot Body. The purpose of this survey is to establish a Ballot Pool to participate in the consensus development process and ballot the proposed Standards Action as defined by the SAR.

While the Ballot Pool is established early in the standards development process, any member of the Registered Ballot Body may join or drop out of a Ballot Pool until the draft standard is posted for ballot (Step 9). The Standards Process Manager shall coordinate changes to the membership of the Ballot Pool and publicly post the Standard Ballot Pool for each SAR.

Standard Drafting Team

For each new SAR, the Standards Process Manager shall post a request that interested parties complete a 'Standard Drafting Team Self-nomination' form. If the Standards Authorization Committee authorizes development of the SAR into a new or revised standard, those individuals who complete and submit these

self-nomination forms shall be considered for appointment to the associated Standard Drafting Team. The SAC will assemble the drafting team only if the SAC accepts the associated SAR for development into a new or revised standard.

Step 4 — Authorization to Proceed With Drafting of a New or Revised Standard

After the public comments on the SAR, the Requester may decide to submit the SAR to the Standards Authorization Committee for authorization to draft the standard. The Standards Authorization Committee reviews the comments received in response to the SAR and any revisions to the SAR. The Standards Authorization Committee, once again considering the Reliability and Market Interface Principles and considering the public comments received and their resolution, may then take one of the following actions:

- Authorize the drafting of the proposed standard or revisions to a standard.
- Reject the SAR with a written explanation to the Requester and post that explanation.

If the Standards Authorization Committee rejects a SAR, the Requester may file an appeal.

Step 5 — Draft New or Revised Standard

Once a SAR has been authorized by the Standards Authorization Committee to proceed to the drafting stage, the Standards Authorization Committee shall assign the development of the standard to a Standard Drafting Team. The Standards Process Manager shall recommend a list of candidates for appointment to the team and shall submit the list to the Standards Authorization Committee. The Standards Authorization Committee may accept the recommendations of the Standards Process Manager or may select other individuals to serve on the Standard Drafting Team. This team shall consist of a small group of people who collectively have the necessary technical expertise and work process skills.

In forming a Standard Drafting Team, the Standards Authorization Committee shall consider individuals who completed a ‘Standard Drafting Team Self-nomination’ form.

The Standards Process Manager shall assign staff personnel to assist in the drafting of the standard.

The drafting of measures and compliance administration aspects of the standard will be coordinated with the Compliance Program.

Once the standard has been drafted, the Standards Process Manager will review the standard for consistency of quality and completeness. The Standards Process Manager will also ensure the draft standard is within the scope and purpose identified in the SAR. This review should occur within a 30-day period. Once the Standards Process Manager has completed this review, the new or revised standard is posted for public comment.

Step 6 — Solicit Public Comments on Draft Standard

Once a draft standard has been verified by the Standards Process Manager to be within the scope and purpose of the SAR and in compliance with this manual, the Standards Process Manager will post the draft standard in the next regular posting interval for the purpose of soliciting public comments. The posting of the draft standard will be linked to the SAR for reference. Comments on the draft standard will be accepted for a 45-day period from the notice of posting. Comments will be accepted on-line using a web-based application along with other electronic means as necessary.

Since the need for the standard was established by authorization of the SAR, comments at this stage should identify specific issues with the draft standard and propose alternative language. The comments may include recommendations to accept or reject the standards and reasons for that recommendation.

Step 7 — Field Testing

The NERC Compliance Program Director will determine if field testing of the proposed new or revised standard is needed and submit his recommendation to the Standards Authorization Committee for approval. Once approved, the Standards Process Manager will facilitate field testing of the standard to validate the standard, the measurement process, and any other elements of the standard necessary to the administration of the Compliance Program. In some cases, measurement may be an administrative task and no field testing is required at all. In other cases, one or more limited scale demonstrations may be sufficient. Comments may be solicited during the field test period.

Step 8 — Analysis of the Comments and Field Test Results

The Standards Process Manager will assemble the comments on the draft standard and distribute those comments to the Standard Drafting Team and the Requester. The Standard Drafting Team, assisted by the Requester, shall give prompt consideration to the written views and objections of all participants. 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 in addition to public posting of the responses. In addition, each objector shall be informed that an appeals process exists within the NERC standards process.

The Standard Drafting Team shall choose one of the following decisions:

- Submit the draft standard for balloting as it stands, along with the comments received and responses to the comments. Based on the comments received and field testing, the Standard Drafting Team may include revisions that are not substantive. A substantive change is one that directly and materially affects the use of the standard, including, for example: changing “shall” to “should,” changing “should” to “shall”; adding, deleting, or revising requirements; or adding, deleting, or revising measures for which compliance is mandatory.
- Withdraw the request for a standard.
- Make substantive revisions to the draft standard by returning to Step 5.

Step 9 — Ballot the New or Revised Standard

If a decision is made to submit the draft standard to a vote, the draft standard, all comments received, and the responses to those comments shall be posted electronically to the Ballot Pool.

First Ballot

The ballot will be conducted electronically. Each standard has its own Ballot Pool and all members of the Ballot Pool shall be eligible to vote on the associated standard. The time window for voting will be designated when the draft standard is posted to the Ballot Pool. In no case will the voting time window start sooner than 30 days from the notice of the posting to the Ballot Pool. Typically, the voting time window will be a period of ten days. This provides a total of 40 days from the initial notice until the end of the voting period.

Approval of a Reliability Standard or revision to a Reliability Standard requires both:

- A quorum, which is established by at least 75% of the members of the Ballot Pool submitting a response with an affirmative vote, a negative vote, or an abstention⁵; and
- A two-thirds majority of the weighted segment votes cast must be affirmative. The number of votes cast is the sum of affirmative and negative votes, excluding abstentions and non-responses.

The following process is used to determine if there are sufficient affirmative votes. (See Appendix C, “Examples of Weighted Segment Voting Calculation.”):

- The number of affirmative votes cast in each segment will be divided by the sum of affirmative and negative votes cast to determine the fractional affirmative vote for each segment. Abstentions and non-responses will not be counted for the purposes of determining the fractional affirmative vote for a segment.
- The sum of the fractional affirmative votes from all segments divided by the number of segments voting will be used to determine if a two-thirds majority has been achieved. (A segment will be considered as “voting” if any member of the segment in the Ballot Pool casts either an affirmative or a negative vote.)
- A standard will be approved if the sum of fractional affirmative votes from all segments divided by the number of voting segments is greater than 0.667.

Each member of the Ballot Pool may vote on one of the following positions:

- Affirmative
- Affirmative, with comment
- Negative, with or without reasons (the reasons for a negative vote may be given and if possible should include specific wording or actions that would resolve the objection)
- Abstain

Members of the Ballot Pool should submit any comments on the proposed standard during the public comment period. ~~and should not raise new issues during the balloting process except as presented by themselves or another commenter during the public comment period. If any comments are received during the ballot period, they shall be addressed in accordance with Step 8 and included with the recirculation ballot.~~ The Standards Process Manager shall facilitate the Standard Drafting Team, assisted by the Requester, in preparing a response to negative votes submitted with reasons. The member submitting a vote with reasons will determine if the response provided satisfies those reasons. In addition, each objector shall be informed that an appeals process exists within the NERC standards process. A negative vote that does not contain a statement of reason does not require a response.

If there are no negative votes with reasons from the first ballot, then the results of the first ballot shall stand. If, however, one or more members submit negative votes with reasons, regardless whether those reasons are resolved or not, a second ballot shall be conducted.

NERC’s intent is to encourage members of the Ballot Pool to become actively involved early on in the process, rather than wait and comment at the last minute, but NERC will address comments submitted during the balloting process as well.

⁵ If a quorum of the Ballot Pool is not established, the standard will be balloted a second time, allowing a 15-business day period for the ballot. Should a quorum not be established with the second ballot, the Standards Process Manager would re-survey the Registered Ballot Body to establish interest in participating in a ballot on the standard in accordance with the procedures in the Reliability Standards Development Manual. A re-ballot of the standard will take place with the revised Standard Ballot Pool.

Second Ballot

In the second ballot (also called a “re-circulation ballot”), members of the Ballot Pool shall again be presented the proposed standard (unchanged from the first ballot) along with the reasons for negative votes, the responses, and any resolution of the differences. All members of the Ballot Pool shall be permitted to reconsider and change their vote from the first ballot. Members of the Ballot Pool that did not respond to the first ballot shall be permitted to vote in the second ballot. In the second ballot, votes will be counted by exception only — members on the second ballot may indicate a revision to their original vote, otherwise their vote shall remain the same as in the first ballot. If a second ballot is conducted, the results of the second ballot shall determine the status of the standard, regardless of the outcome of the first ballot.

The voting time window for the second ballot is once again ten days. The 30-day posting is not required for the second ballot. Members of the Ballot Pool may submit comments in the second ballot but no response is required.

In the second ballot step, no revisions to the standard are permitted, as such revisions would not have been subject to public comment. However, if the Standards Authorization Committee determines that revisions proposed during the ballot process would likely provide an opportunity to achieve consensus on the standard, then such revisions may be made and the draft standard posted for public comment again beginning with Step 6 and continuing with subsequent steps.

The Standards Process Manager shall post the final outcome of the ballot process. If the standard is rejected, the process is ended and any further work in this area would require a new SAR. If the standard is approved, the consensus standard will be posted and presented to the Board of Trustees for adoption by NERC.

Step 10 — Adoption of the Reliability Standard by the Board

A Reliability Standard submitted for adoption by the Board of Trustees must be publicly posted and noticed at least 30 days prior to action by the Board of Trustees. At a regular or special meeting, the Board of Trustees shall consider adoption of the proposed Reliability Standard. The Board will consider the results of the balloting and dissenting opinions. The Board will consider any advice offered by the NERC Stakeholders Committee. The Board may adopt or reject a standard, but may not modify a proposed Reliability Standard. If the Board chooses not to adopt a standard, it should provide its reasons for not doing so.

A Reliability Standard that is adopted by the Board shall become effective on a date designated by the Board in accordance with the implementation plan. The standard will be publicly posted, showing the final status.

Step 11 — Implementation of Reliability Standard

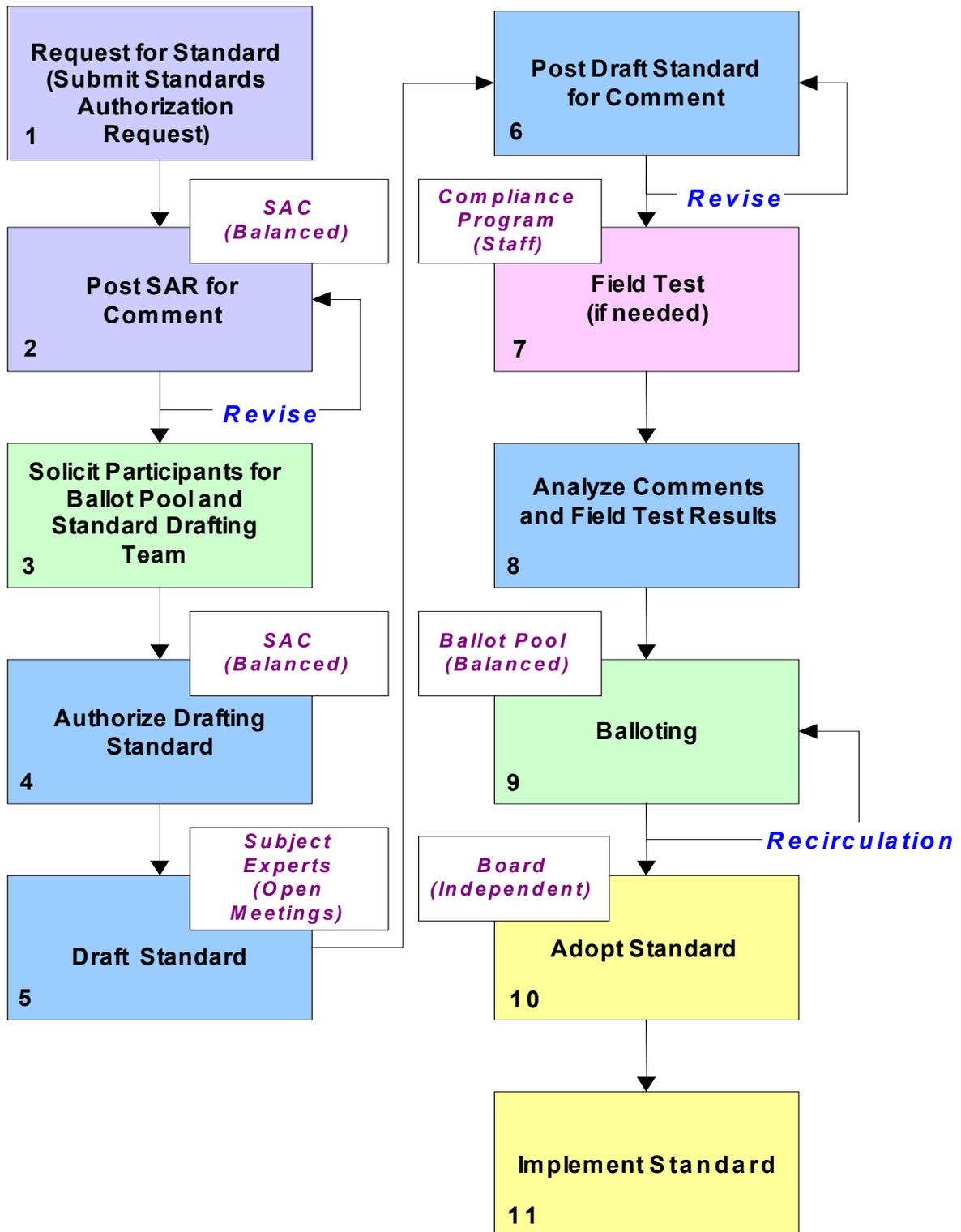
Once a Reliability Standard is adopted, all persons and organizations subject to the Bylaws of NERC are required to comply with the standard in accordance with those Bylaws and other applicable agreements. The adopted Reliability Standard will then be monitored by the NERC Compliance Enforcement Program to oversee the implementation and assess the effectiveness of the Reliability Standard.

The Board of Trustees has established a separate Compliance Program to measure compliance with the standards and administer sanctions as appropriate. After adoption of a NERC Reliability Standard, the standard will be forwarded to the Compliance Program for implementation.

NERC Reliability Standards Process Manual

Reliability Standards will be filed with applicable regulatory agencies in the United States, Canada, and Mexico as required to implement the NERC Compliance Enforcement Program.

Process Diagram



Special Procedures

Urgent Actions

Under certain conditions, the Standards Authorization Committee may designate a proposed standard or revision to a standard as requiring urgent action. Urgent action may be appropriate when a delay in implementing a proposed standard or revision can materially impact reliability of the bulk electric systems. The Standards Authorization Committee must use its judgment carefully to ensure an urgent action is truly necessary and not simply an expedient way to change or implement a standard.

A Requester prepares a SAR and a draft of the proposed standard and submits it to the Standards Process Manager. The SAR must include a justification for urgent action. The Standards Process Manager submits the request to the Standards Authorization Committee for its consideration. If the Standards Authorization Committee designates the requested standard or revision as an urgent action item, then the Standards Process Manager shall immediately seek participants for a Ballot Pool (as described in Step 3 of the Standards Development Process) and shall post the draft. This posting requires a minimum 30-day posting period before the ballot and applies the same voting procedure as described in Step 9

Any standard approved as an urgent action shall have a termination date specified that shall not exceed one year from the approval date. Should there be a need to make the standard permanent, then the standard would be required to go through the full consensus process. Urgent actions that expire may be renewed no more than once using the urgent action process again, in the event a permanent standard is not adopted.

Interpretations of Standards

All persons who are directly and materially affected by the reliability of North American bulk electric systems shall be permitted to request an interpretation of the standard. The person requesting an interpretation will send a request to the Standards Process Manager explaining the specific circumstances surrounding the request and what clarifications are required as applied to those circumstances. The request should indicate the material impact to the requesting party or others caused by the lack of clarity or a possibly incorrect interpretation of the standard.

The Standards Process Manager will assemble a team with the relevant expertise to address the clarification. The Standards Process Manager shall also form a Ballot Pool.

As soon as practical (not more than 45 days), the team will draft a written interpretation to the standard addressing the issues raised. Balloting shall take place as described in Step 9 of the Standards Development Process. If approved, the interpretation is appended to the standard and is effective immediately. The interpretation will stand until such time as the standard is revised through the normal process, at which time the standard will be modified to incorporate the clarifications provided by the interpretation.

Regional Differences

A Regional Difference is an aspect of a NERC Reliability Standard that applies only within a given Region or Regions. A Regional Difference may be used, for example, to exempt a particular Region from all or a portion of a NERC Reliability Standard that does not apply in that Region. A Regional Difference may establish different measures or performance criteria as necessary to achieve reliability within that Region.

To the maximum extent feasible, Regional Differences should be addressed through the NERC standards process and incorporated into and approved as part of the NERC Reliability Standard. In all cases, if a requirement would otherwise be inconsistent with or less stringent than a NERC Reliability Standard, then that Regional Difference shall be made part of the NERC Reliability Standard.

Regional Differences should be identified and considered when the SAR is posted for comment. Regional Differences should also be considered in the drafting of a standard, with the intent to make any necessary Regional Differences a part of the standard. Public comments on the draft standard provide a second opportunity to ensure necessary Regional Differences have been accommodated in the draft. The public posting also allows for all impacted parties to identify the requirements of a NERC Reliability Standard as applied within all Regions and Interconnections.

Regional Differences that are proposed to be made part of a NERC Reliability Standard shall be considered during the NERC standards process in accordance with the Criteria for Regional Standards and Regional Differences section below. These criteria provide that:

- Interconnection-wide Regional Differences are presumed to be valid, and there is a burden of proof to demonstrate otherwise in accordance with the stated criteria; and
- Regional Differences that are not applied on an Interconnection-wide basis are not presumed to be valid but may be demonstrated by the proponent to be valid in accordance with the stated criteria.

Regional Standards

Regions may develop, through their own processes, separate Regional Standards that go beyond, add detail to, or implement NERC Reliability Standards, or that cover matters not addressed in NERC Reliability Standards. Regional Standards may be developed and exist separately from NERC Reliability Standards, or may be proposed as NERC Reliability Standards. Regional Standards that exist separately from NERC Reliability Standards shall not be inconsistent with or less stringent than NERC Reliability Standards.

A Regional Standard that is proposed to be made a NERC Reliability Standard shall be considered during the NERC standards process in accordance with the Criteria for Regional Standards and Regional Differences section below. These criteria provide that:

- Interconnection-wide Regional Standards are presumed to be valid, and there is a burden of proof to demonstrate otherwise in accordance with the stated criteria; and
- Regional Standards that are not applied on an Interconnection-wide basis are not presumed to be valid but may be demonstrated by the proponent to be valid in accordance with the stated criteria.

Criteria for Regional Standards and Regional Differences

Proposals for Regional Standards or Regional Differences that are intended to apply on an **Interconnection-wide basis** shall be presumed to be valid and included in a NERC Reliability Standard unless there is a clear demonstration within the NERC standards process that the proposed Regional Standard or Regional Difference:

- Was not developed in a fair and open process that provided an opportunity for all interested parties to participate;
- Would have a significant adverse impact on reliability or commerce in other Interconnections;

- Fails to provide a level of reliability of the bulk electric system within the Interconnection such that the Regional Standard would be likely to cause a serious and substantial threat to public health, safety, welfare, or national security; or
- Would create a serious and substantial burden on competitive markets within the Interconnection that is not necessary for reliability.

Proposals for Regional Standards or Regional Differences that are intended to apply only to **part of an Interconnection** will be included in a NERC Reliability Standard only if the proponent demonstrates that the proposed Regional Standard or Regional Difference:

- Was developed in a fair and open process that provided an opportunity for all interested parties to participate;
- Would not have an adverse impact on commerce that is not necessary for reliability;
- Provides a level of bulk electric system reliability that is adequate to protect public health, safety, welfare, and national security and would not have a significant adverse impact on reliability; and
- Is based on a justifiable difference between Regions or between subregions within the Regional Council's geographic area.

Appeals

Persons who have directly and materially affected interests and who have been or will be adversely affected by any substantive or procedural action or inaction related to the development, approval, revision, reaffirmation, or withdrawal of a Reliability Standard shall have the right to appeal. This appeals process applies only to the NERC Reliability Standards process as defined in this manual.

The burden of proof to show adverse effect shall be on the appellant. Appeals shall be made 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. In all cases, the request for appeal must be made prior to the next step in the process.

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:

Level 1 Appeal

Level 1 is the required first step in the appeals process. The appellant submits to the Standards Process Manager a complaint in writing that describes the substantive or procedural action or inaction associated with a Reliability Standard or the standards process. The appellant describes in the complaint the actual or potential adverse impact to the appellant. Assisted by any necessary staff and committee resources, the Standards Process Manager 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 will be made a part of the public record associated with the standard.

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 Standards Process Manager, the Standards Process Manager shall convene a Level 2 Appeals Panel. This panel shall consist of five panel members total 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 Standards Process Manager 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 person that is directly and materially affected by the substantive or 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 Authorization 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, as these responsibilities remain with the standard's 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. The objection must be in writing, signed by an officer of 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 must be filed no later than 30 days after the announcement of the vote by the Ballot Pool on the Reliability Standard in question.

Maintenance of Reliability Standards and Process

Parliamentary Procedures

Except as required by this manual or other NERC documents, all meetings conducted as part of the standards process shall be guided by the latest version of Robert's Rules of Order.

Process Revisions

A request to change this Reliability Standards Process Manual shall begin with the preparation of a SAR⁶ and be handled using the same procedure as a request to revise a Reliability Standard, with the exception that a single ballot of the Ballot Pool will be conducted and the results of that ballot will be binding. Once approved by the Ballot Pool, any proposed revisions to this manual would go to the Board of Trustees for adoption. The manual may be revised only by authority of the NERC Board of Trustees.

Standards Process Accreditation

NERC shall seek continuing ANSI accreditation of the standards process defined by this manual. The Standards Process Manager shall be responsible for administering the accreditation application and maintenance process.

Five-Year Review

Each Reliability Standard shall be reviewed at least once every five years from the effective date of the standard or the latest revision to the standard, whichever is the later. The review process shall be conducted in accordance with Steps 6, 8, and 9 of the standards process. As a result of this review, a Reliability Standard shall be reaffirmed, revised, or withdrawn. If this review indicates a need to revise or delete the standard, a SAR shall be prepared and submitted in accordance with the standards process. The Standards Process Manager shall be responsible for administration of the five-year review of Reliability Standards.

Filing of Reliability Standards with Regulatory Agencies

At the discretion of the Board of Trustees, adopted Reliability Standards may be filed with applicable regulatory agencies in the United States, Canada, and Mexico.

On-line Standards Information System

The Standards Process Manager shall be responsible for maintaining an electronic database of information regarding currently proposed and currently in effect Reliability Standards. This information shall include current standards in effect, proposed revisions to standards, and proposed new 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. This information shall be available through public Internet access.

⁶ The Board of Trustees may make changes to the Industry Segments referenced in Appendix B. These changes shall be carried over to this manual without the need to prepare a SAR.

Archived Standards Information

The Standards Process Manager shall be responsible for maintaining a historical record of Reliability Standards information that is no longer maintained on-line. For example, standards that expired or were replaced may be removed from the on-line system. Also, SARs that are no longer being considered in the standards process may be placed in the archived records. 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 standard was no longer in effect. Archived records of standards information shall be available electronically within 30 days following the receipt by the Standards Process Manager of a written request.

Numbering System

The Standards Process Manager shall establish and maintain a system of identification numbers that allow Reliability Standards to be categorized and easily referenced.

Supporting Documents

The following documents may be developed to support a Reliability Standard. These documents may explain or facilitate implementation of standards but do not themselves contain mandatory requirements subject to compliance review. Any requirements that are mandatory shall be incorporated into the standard. For example, a procedure that must be followed as written must be incorporated into a Reliability Standard. If the procedure defines one way, but not necessarily the only way, to implement a standard it is more appropriately a reference.

<i>Type of Document</i>	<i>Description</i>	<i>Approval</i>
Standard Reference	Descriptive, explanatory information to support the understanding and interpretation of a Reliability Standard.	Standing Committee
Standard Supplement	Data forms, pro forma documents, and associated instructions that support the implementation of a Reliability Standard.	Standing Committee
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.	Standing Committee
Practice	A convention of behavior. Practices may support the implementation of a Reliability Standard or satisfy another purpose consistent with the Reliability and Market Interface Principles.	Standing Committee
Training Reference	Training materials that may support the implementation of a Reliability Standard or satisfy another purpose consistent with the Reliability and Market Interface Principles.	Standing Committee
Technical Reference	Descriptive, technical information or analysis. A technical reference may support the implementation of a Reliability Standard or satisfy another purpose consistent with the Reliability and Market Interface Principles.	Standing Committee
White Paper	An informal paper stating a position or concept. A white paper may be used to propose preliminary concepts for a standard or one of the documents above.	Standing Committee Approves for Publication with No Implied Approval of the Concepts or Positions in the White Paper.

Appendix A – Information in a Standard Authorization Request

The table below provides a representative example⁷ of information in a Standard Authorization Request. The Standards Process Manager shall be responsible for implementing and maintaining this form as needed to support the information requirements of the standards process.

Standard Authorization Request Form

Title of Proposed Standard
Request Date

NERC will complete
ID
Authorized for Posting
Authorized for Development

SAR Requestor Information

Name	SAR Type (Check box for one of these selections.)	
Company	<input type="checkbox"/>	New Standard
Telephone	<input type="checkbox"/>	Revision to Existing Standard
Fax	<input type="checkbox"/>	Withdrawal of Existing Standard
E-mail	<input type="checkbox"/>	Urgent Action

Purpose (Provide one or two sentences.)
--

Industry Need (Provide one or two sentences.)
--

⁷ The latest version of this form can be downloaded from the NERC Standards Development web page:

<http://www.nerc.com/~filez/sar.html>

Brief Description (A few sentences or a paragraph.)

Reliability Functions

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

<input type="checkbox"/>	Reliability Authority	Ensures the reliability of the bulk transmission system within its Reliability Authority area. This is the highest reliability authority.
<input type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within its metered boundary and supports system frequency in real time
<input type="checkbox"/>	Interchange Authority	Authorizes valid and balanced Interchange Schedules
<input type="checkbox"/>	Planning Authority	Plans the bulk electric system
<input type="checkbox"/>	Transmission Service Provider	Provides transmission services to qualified market participants under applicable transmission service agreements
<input type="checkbox"/>	Transmission Owner	Owns transmission facilities
<input type="checkbox"/>	Transmission Operator	Operates and maintains the transmission facilities, and executes switching orders
<input type="checkbox"/>	Distribution Provider	Provides and operates the “wires” between the transmission system and the customer
<input type="checkbox"/>	Generator	Owns and operates generation unit(s) or runs a market for generation products that performs the functions of supplying energy and Interconnected Operations Services
<input type="checkbox"/>	Purchasing-Selling Entity	The function of purchasing or selling energy, capacity and all necessary Interconnected Operations Services as required
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission (and related generation services) to serve the end user

Reliability and Market Interface Principles

Applicable Reliability Principles (Check box for all that apply.)	
<input type="checkbox"/>	1. Interconnected bulk electric 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 electric 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 electric 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 electric systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide-area basis.
Does the proposed Standard comply with all of the following Market Interface Principles? (Select 'yes' or 'no' from the drop-down box.)	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. A Reliability Standard shall not give any market participant an unfair competitive advantage. Yes	
3. A Reliability Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. A Reliability Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. 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	

Detailed Description (Provide enough detail so that an independent entity familiar with the industry could draft a Standard based on this description.)

Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ECAR	
ERCOT	
FRCC	
MAAC	
MAIN	
MAPP	
NPCC	

SERC	
SPP	
WSCC	

Implementation Plan

<p>Description <i>(Provide plans for the implementation of the proposed standard, including any known systems or training requirements.)</i></p>
<p>Proposed Implementation <i>days after Board of Trustees adoption or</i> <i>on (date):</i></p>

Assignments

	Assignment
Team Members	
NERC Staff	

Appendix B – Development of the Registered Ballot Body⁸

Registration Procedures

The Registered Ballot Body comprises all organizations, and entities that:

1. Qualify for one of the segments, and
2. Are registered with NERC as potential ballot participants in the voting on standards, and
3. Are current with any designated fees.

The Board is authorized to change this appendix from time to time as indicated in footnote 8 below.

Each participant, when initially registering to join the Registered Ballot Body, and annually thereafter, will self-select to belong to one of the segments described above.

NERC General Counsel will review all applications for joining the Registered Ballot Body, and make a determination of whether the self-selection satisfies at least one of the guidelines to belong to that segment. The entity will then be “credentialed” to participate as a voting member of that segment. The Standards Authorization Committee will decide disputes, with an appeal to the Board of Trustees.

All registrations will be done electronically.

~~A segment must contain a minimum of five members to be considered a valid segment.~~

All nine segments are now populated by at least five members, so there is no longer a need for this provision.

Segment Qualification Guidelines

The segment qualification guidelines are inclusive; i.e., any entity with a legitimate interest in the electric industry that can meet any one of the guidelines for a segment is entitled to belong to and vote in that segment.

The general guidelines for all segments are:

- Corporations or organizations with integrated operations or with affiliates that qualify to belong to more than one segment (e.g., Transmission Owners and Load Serving Entities) may belong to each of the segments in which they qualify, provided that each segment constitutes a separate membership and is represented by a different representative.
- Corporations, organizations, and entities may participate freely in all subgroups.
- After their initial selection, registered participants may apply to change segments annually, according to a defined schedule.
- The qualification guidelines and rules for joining segments will be reviewed periodically to ensure that the process continues to be fair, open, balanced, and inclusive. Public input will be solicited in the review of these guidelines.

⁸ This description is from the Final Report of the NERC Standing Committees Representation Task Force, February 7, 2002. The Board of Trustees endorsed the Industry Segments and weighted segment voting model described within this document on February 20, 2002 and may change this from time to time. The latest version (approved or endorsed by the NERC Board of Trustees) shall be used in the NERC Standards Development Process.

~~□ Vendors, consultants, prime contractors of generation or transmission facilities, academics, and others may participate actively as standards are developed, but will not be permitted to be voting members of any segment.~~

- Since all balloting of standards will be done electronically, any registered participant may designate an agent or proxy to vote on its behalf. There are no limits on how many proxies an agent may hold. However, NERC must have in its possession, either in writing or by e-mail, documentation that the voting right by proxy has been transferred from the registered participant to the agent.

The initial intent of including this guideline was to emphasize that NERC is not providing a segment specifically for vendors, consultants, etc. Any of these entities that qualify as either large or small end-use customers may join the appropriate segment in which they qualify.

Initial Segments

Segment 1. Transmission Owners

- a. Any entity that owns or controls at least 200 circuit miles of integrated transmission facilities, or has an Open Access Transmission Tariff or equivalent on file with a regulatory authority.
- b. Transmission owners that have placed their transmission under the operational control of an RTO.
- c. Independent transmission companies or organizations, merchant transmission developers, and transcos that are not RTOs.
- d. Excludes RTOs and ISOs (that are eligible to belong to Segment 2).

Segment 2. Regional Transmission Organizations (RTOs), Independent System Operators (ISOs), and Regional Reliability Councils

- a. Authorized by appropriate regulator to operate as RTO or ISO.
- b. Regional Reliability Councils that are members of NERC.
- c. In cases where the RTO or ISO and the RRC have exactly the same geographic boundary, both may belong to this segment as long as they are separate entities.

Segment 3. Load-Serving Entities (LSEs)

- a. Entities serving end-use customers under a regulated tariff, a contract governed by a regulatory tariff, or other legal obligation to serve.
- b. A member of a G&T cooperative or a joint-action agency is permitted to designate the G&T or joint-action agency to represent it in this segment; such designation does not preclude the G&T or joint-action agency from participation and voting in another segment representing its direct interests.

Segment 4. Transmission Dependent Utilities

- a. Entities with a regulatory, contract, or other legal obligation to serve wholesale aggregators or end-use customers, and that depend primarily on the transmission systems of third parties to provide this service.

- b. Agents or associations can represent groups of TDUs.

Segment 5. *Electric Generators*

- a. Affiliated and independent generators.
- b. A corporation that sets up separate corporate entities for each one or two generating plants in which it is involved may only have one vote in this segment regardless of how many single-plant or two-plant corporations the parent corporation has established or is involved in.

Segment 6. *Electricity Brokers, Aggregators, and Marketers*

- a. Entities serving end-use customers under a power marketing agreement or other authorization not classified as a regulated tariff.
- b. An entity that buys, sells, or brokers energy and related services for resale in wholesale or retail markets, whether a non-jurisdictional entity operating within its charter or an entity licensed by a jurisdictional regulator.
- c. G&T cooperatives and joint-action agencies that perform an electricity broker, aggregator, or marketer function are permitted to belong to this segment.

Segment 7. *Large Electricity End Users*

- a. At least one service delivery taken at 50 kV (radial supply or facilities dedicated to serve customers) that is not purchased for resale.
- b. A single customer with an average aggregated service load (not purchased for resale) of at least 50,000 MWh annually, excluding cogeneration or other back feed to the serving utility.
- c. Agents or associations can represent groups of large end users.

Segment 8. *Small Electricity Users*

- a. Service taken at below 50 kV.
- b. A single customer with an average aggregated service load (not purchased for resale) of less than 50,000 MWh annually, excluding cogeneration or other back feed to the serving utility.
- c. Agents, state consumer advocates, or other advocate groups can represent groups of small customers.

Segment 9. *Federal, State, and Provincial Regulatory or other Government Entities*

- a. Does not include Federal PMAs or TVA.
- b. May include PUCs.

Appendix C – Examples of Weighted Segment Voting Calculation

(Assumptions on numbers of entities are purely hypothetical, and used only for illustrative purposes.)

Ballot Body and Pools

Segment	Registered Ballot Body	Ballot Pools	
		Standard #1	Standard #2
1. Transmission Owners	300	250	100
2. RTOs, ISOs, and RRCs	20	20	20
3. LSEs	200	100	50
4. TDUs	100	75	50
5. Electric Generators	25	20	25
6. Brokers, Aggregators, & Marketers	10	10	10
7. Large End-Use Customers	5	1	4
8. Small End-Use Customers	25	10	5
9. Regulators or Other Gov't Entities	50	10	15
Totals	735	496	279

Example 1

Segment	Ballot Pool	Votes				Abstain	No Ballot
		Affirmative		Negative			
		# Votes	Fraction	# Votes	Fraction		
1	250	200	0.833	40	0.167	10	0
2	20	15	0.750	5	0.250	0	0
3	100	60	0.632	35	0.368	5	0
4	75	50	0.714	20	0.286	0	5
5	20	7	0.412	10	0.588	2	1
6	10	6	0.600	4	0.400	0	0
7	1	0		0		1	0
8	10	0		0		0	10
9	10	8	0.800	2	0.200	0	0
Totals	496	346	4.741	116	2.259	18	16
Ballots	480	96.8%					
Wtd Vote			0.677		0.323		

Weighted segment vote is greater than 0.667 AND more than 75% of the Standard Ballot Pool returned a ballot. Standard is approved.

No "Affirmative" or "Negative" votes cast, so segments not counted in total weighting.

Percent ballots returned
 = (480/496) x 100
 = 96.6%

Weighted segment vote
 = (Total Fraction) / (Segments Counted)
 = 4.741 / 7

Example 2

Segment	Ballot Pool	Votes				Abstain	No Ballot
		Affirmative		Negative			
		# Votes	Fraction	# Votes	Fraction		
1	100	25	1.000	0	0.000	0	75
2	20	15	0.750	5	0.250	0	0
3	50	30	0.600	20	0.400	0	0
4	50	25	0.833	5	0.167	0	20
5	25	18	0.783	5	0.217	2	0
6	10	6	0.600	4	0.400	0	0
7	4	4	1.000	0	0.000	0	0
8	5	5	1.000	0	0.000	0	0
9	15	7	1.000	0	0.000	5	3
Total	279	135	7.566	39	1.434	7	98
Ballots	181	64.87%					
Wtd Vote			0.841		0.159		

Weighted segment vote is greater than 0.667 BUT less than 75% of the Standard Ballot Pool returned a ballot. Standard is NOT approved.