

Standards Development

Rachel Coyne
Executive Chief of Staff

Antitrust Admonition



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Notice of this meeting was posted on the Texas RE website and this meeting is being held in public. Participants should keep in mind that the listening audience may include members of the press, representatives from various governmental authorities, and industry stakeholders.





Upcoming ERO Events





June 6 - July 13, 2023

Inverter-Based
Resource Webinar
Series



June 8, 2023

Resource Adequacy
Discussion Series



Technical Talk with RF





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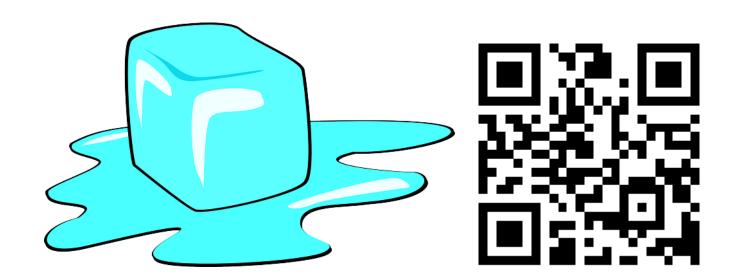
slido Product Solut

Joining as a participant?

Enter event code

Join an existing event

Slido Question #1 Have you ever participated in the Standards Development process?







What Do I Need to Know?



What are Reliability Standards?

Navigating NERC's Website

- Requirement language
- Applicability
- Effective dates
- Implementation plans

Standards Development

- Process for developing standards
- How to participate









What are Reliability Standards?





NERC Glossary and ROP Definition of a Reliability Standard



A requirement, approved by the United States Federal **Energy Regulatory Commission under Section 215 of the** Federal Power Act, or approved or recognized by an applicable governmental authority in other jurisdictions, to provide for Reliable Operation of the Bulk-Power System. The term includes requirements for the operation of existing Bulk-Power System facilities, including cybersecurity protection, and the design of planned additional or modifications to such facilities to the extent necessary to provide for Reliable Operation of the Bulk Power System, but the term does not include any requirement to enlarge such facilities or to construct new transmission capacity or generation capacity.







95 Reliability Standards

Over 1600 Requirements

Critical Infrastructure Protection (CIP)

Operations & Planning (O&P)





NERC Reliability Standards Categories



BAL Resource and Demand Balancing

COM Communications

CIP Critical Infrastructure Protection

EOP Emergency Preparedness and Operations

FAC Facilities Design, Connections, and Maintenance

INT Interchange Scheduling and Coordination

IRO Interconnection Reliability Operations and Coordination

MOD Modeling, Data, and Analysis

NUC Nuclear

PER Personnel Performance, Training, and Qualifications

PRC Protection and Control

TOP Transmission Operations

TPL Transmission Planning

VAR Voltage and Reactive





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Slido Question

Which of the following is NOT a Reliability Standard category?

A. BAL

B. CAM

C. PRC

D. VAR







Cyber Security Reliability Standards



CIP-002: BES Cyber System Categorization

CIP-003: Security Management Controls

CIP-004: Personnel & Training

CIP-005: Electronic Security Perimeter (ESP)

CIP-006: Physical Security of Critical Cyber Assets

CIP-007: Systems Security Management

CIP-008: Incident Reporting and Response Planning

CIP-009: Recovery Plans for Critical Cyber Assets

CIP-010: Configuration Change Management and Vulnerability Assessments

CIP-011: Information Protection

CIP-012: Communications Between Control Centers

CIP-013: Supply Chain Risk Management

CIP-014: Physical Security







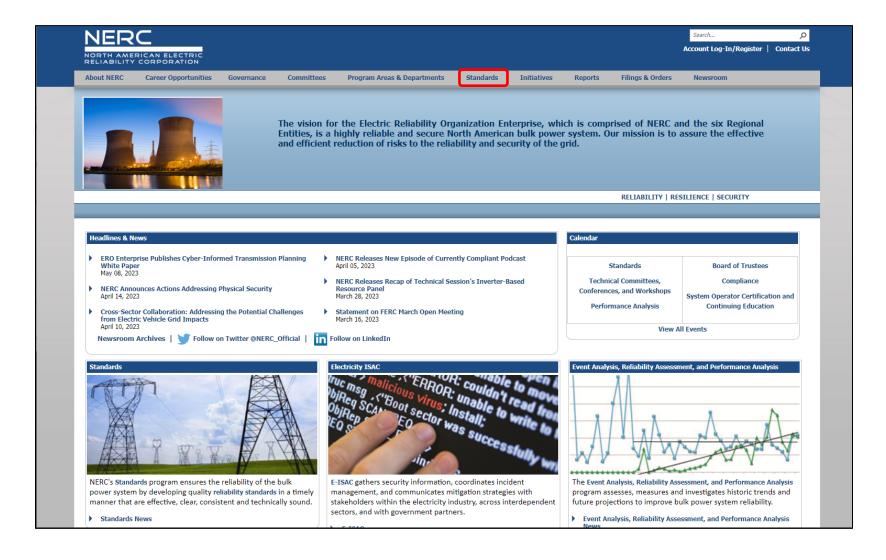
Navigating NERC's Website





NERC Standards Webpage



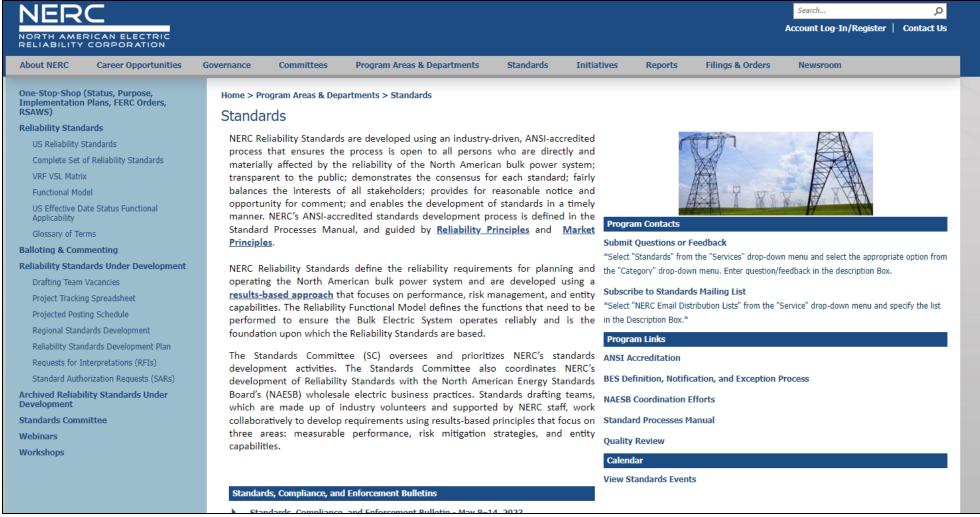






Standards Webpage Navigation



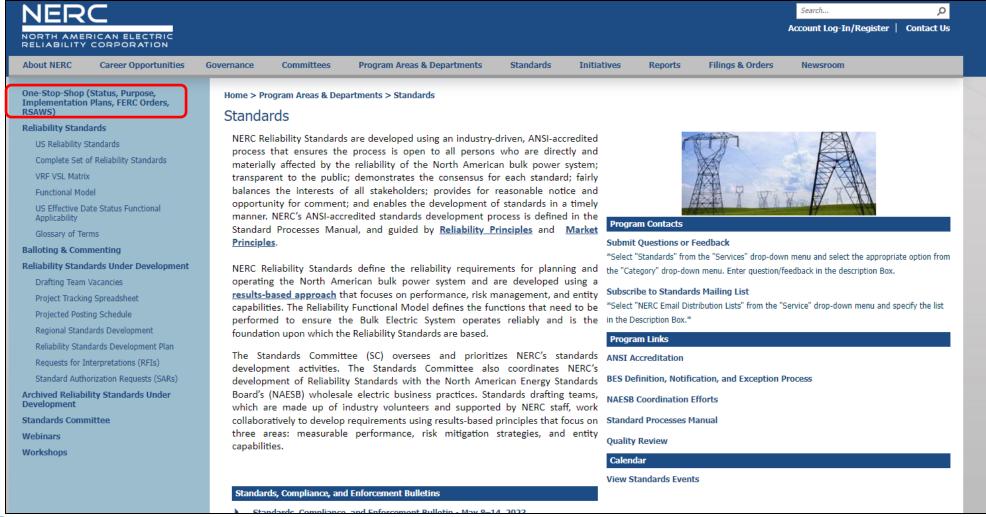






One-Stop-Shop









One-Stop-Shop



What This **Spreadsheet Shows**:

- U.S. Status (Column A)
- Purpose of the standard (Column D)
- Effective date of standard (Column I)
- Link to standard language (Column B)
- Link to Project Page (Column N)
- Link to Implementation Plan, if applicable (Column K)
- Note whether it is a phased-in Implementation Plan (Column I)
- Link to RSAW (Column P)
- Link to Lessons Learned, if applicable (Column Q)
- Link to Compliance Guidance, if applicable (Column R)

Does Not Include:

- Phased-in implementation dates
- Comprehensive list of standards throughout (NERC) history





Locating Requirement Language (Column B)



CIP-003-8 - Cyber Security — Security Management Controls

A. Introduction

1. Title: Cyber Security — Security Management Controls

2. Number: CIP-003-8

3. Purpose: To specify consistent and sustainable security management controls that

establish responsibility and accountability to protect BES Cyber Systems against compromise that could lead to misoperation or instability in the Bulk

Electric System (BES).

4. Applicability:

4.1. Functional Entities: For the purpose of the requirements contained herein, the following list of functional entities will be collectively referred to as "Responsible Entities." For requirements in this standard where a specific functional entity or subset of functional entities are the applicable entity or entities, the functional entity or entities are specified explicitly.

4.1.1. Balancing Authority

- **4.1.2. Distribution Provider** that owns one or more of the following Facilities, systems, and equipment for the protection or restoration of the BES:
 - **4.1.2.1.** Each underfrequency Load shedding (UFLS) or undervoltage Load shedding (UVLS) system that:
 - 4.1.2.1.1. is part of a Load shedding program that is subject to one or more requirements in a NERC or Regional Reliability Standard; and
 - 4.1.2.1.2. performs automatic Load shedding under a common





Locating Requirement Language



B. Requirements and Measures

- R1. Each Responsible Entity shall review and obtain CIP Senior Manager approval at least once every 15 calendar months for one or more documented cyber security policies that collectively address the following topics: [Violation Risk Factor: Medium] [Time Horizon: Operations Planning]
 - 1.1. For its high impact and medium impact BES Cyber Systems, if any:
 - 1.1.1. Personnel and training (CIP-004);
 - 1.1.2. Electronic Security Perimeters (CIP-005) including Interactive Remote Access;
 - 1.1.3. Physical security of BES Cyber Systems (CIP-006);
 - 1.1.4. System security management (CIP-007);
 - 1.1.5. Incident reporting and response planning (CIP-008);
 - 1.1.6. Recovery plans for BES Cyber Systems (CIP-009);
 - Configuration change management and vulnerability assessments (CIP-010);
 - 1.1.8. Information protection (CIP-011); and
 - 1.1.9. Declaring and responding to CIP Exceptional Circumstances.
 - 1.2. For its assets identified in CIP-002 containing low impact BES Cyber Systems, if any:
 - 1.2.1. Cyber security awareness;
 - 1.2.2. Physical security controls;
 - 1.2.3. Electronic access controls;





Applicability



CIP-003-8 - Cyber Security — Security Management Controls

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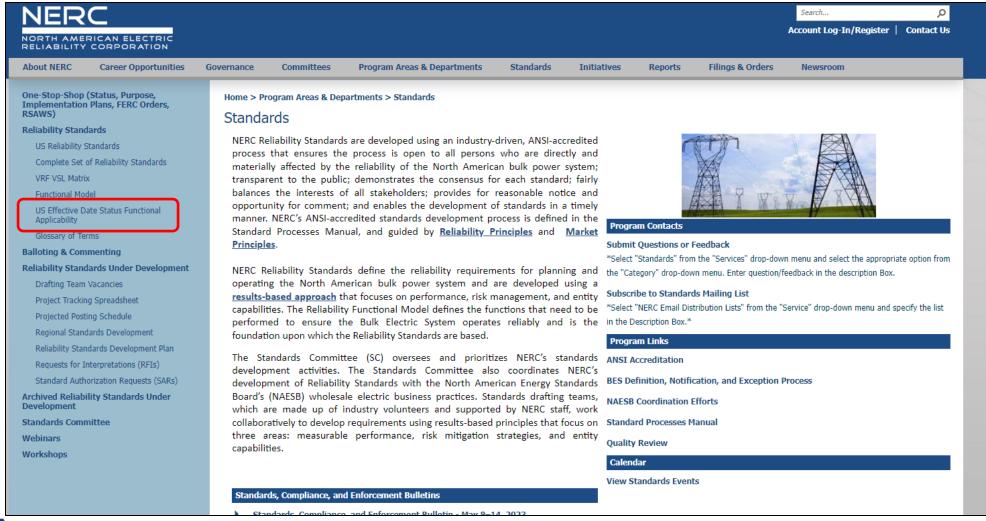
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 - **4.1.2.1.2.** performs automatic Load shedding under a common





Applicability – Functional Applicability Spreadsheet









Functional Applicability Spreadsheet



What This Spreadsheet Shows:

- Comprehensive list of standards throughout (NERC) history
- U.S. Status (Column A)
- Requirement Text (Column F)
- Filing Date (Column J)
- Regulatory Order Effective Date (Column L)
- Effective Date of Requirement/Part (Column M)
- Phased-in implementation dates, if applicable (Column N)
- Applicable Functions (Columns R AL)





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Slido Question

What information is available on NERC's One-Stop-Shop spreadsheet?

- A. Applicable Compliance Guidance
- B. Lessons Learned
- C. Standard effective dates
- D. Purpose of the standard
- E. All of the above







Implementation Plan



At 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





One-Stop-Shop



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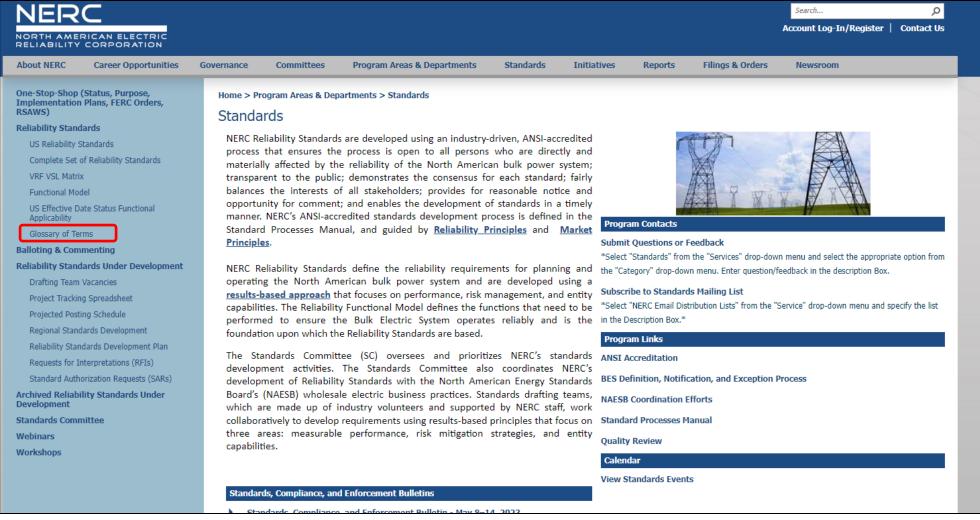
- Phased-in implementation dates
- Comprehensive list of standards throughout (NERC) history





Finding the NERC Glossary of Terms









NERC Glossary of Terms



Glossary of Terms Used in NERC Reliability Standards

Updated March 29, 2022

This Glossary lists each term that was defined for use in one or more of NERC's continentwide or Regional Reliability Standards and adopted by the NERC Board of Trustees from February 8, 2005 through March 29, 2022.

This reference is divided into four sections, and each section is organized in alphabetical order.

Subject to Enforcement Pending Enforcement Retired Terms Regional Definitions

The first three sections identify all terms that have been adopted by the NERC Board of Trustees for use in continent-wide standards; the Regional definitions section identifies all terms that have been adopted by the NERC Board of Trustees for use in regional standards.

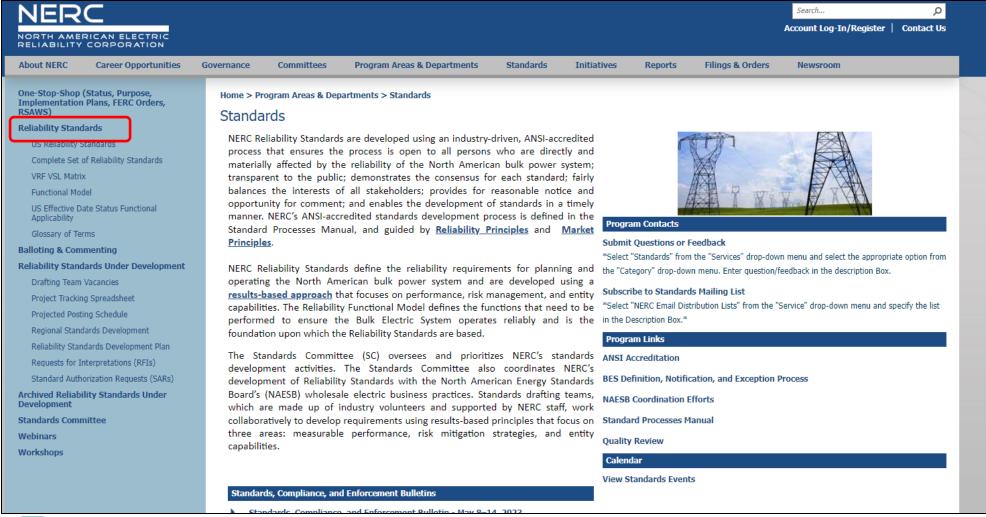
Most of the terms identified in this glossary were adopted as part of the development of NERC's initial set of reliability standards, called the "Version 0" standards. Subsequent to the development of Version 0 standards, new definitions have been developed and approved following NERC's Reliability Standards Development Process, and added to this glossary following board adoption, with the "FERC effective" date added following a final Order approving the definition.





Other Information



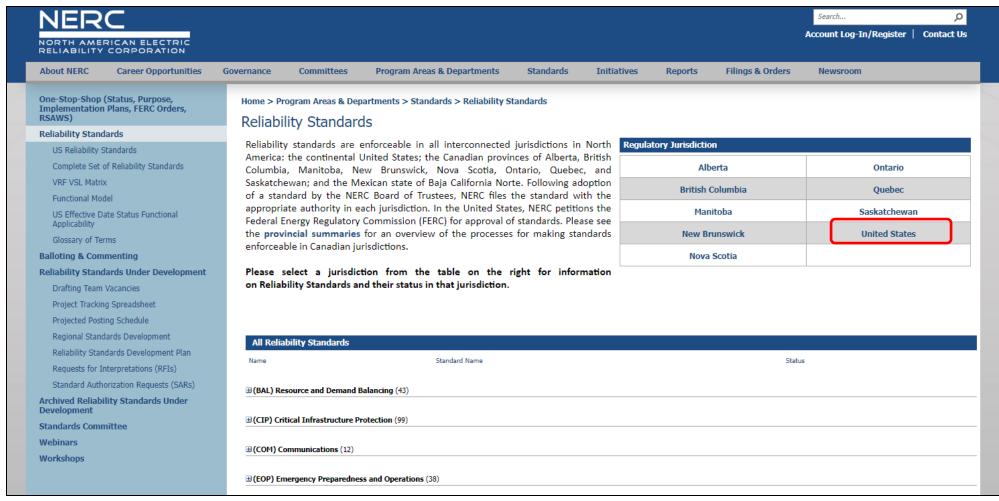






Other Information









Other Information



One-Stop-Shop: A one-stop shop that includes links to standards, implementation plans, project pages, Reliability Standards Audit Worksheets, FERC Orders, and compliance guidance.

United States Mandatory Standards Subject to Enforcement: Standards that are currently enforceable in the United States.

United States Standards Subject to Future Enforcement: Standards that are approved by FERC, but not yet enforceable in the United States.

<u>United States Standards Filed and Pending Regulatory Approval</u>: Standards adopted by the NERC Board of Trustees (Board) and filed with FERC for approval, but not yet approved by FERC.

United States Standards Pending Regulatory Filing: Standards adopted by the Board, but not yet filed with FERC.

United States Inactive Standards: Standards that have been superseded by another and are no longer enforceable.

<u>United States Standards Pending Inactive</u>: Standards that have been superseded by other standards will never be enforceable. The status will change to inactive at midnight on the day immediately prior to the effective date of the superseding standard.

Download as Data

Standards Requirements Parts All

Please send any questions or comments via the NERC Help Desk.







Standards Development





The Rules



<u>NERC</u>

Appendix 3A

Standard Processes Manual

Effective: March 1, 2019

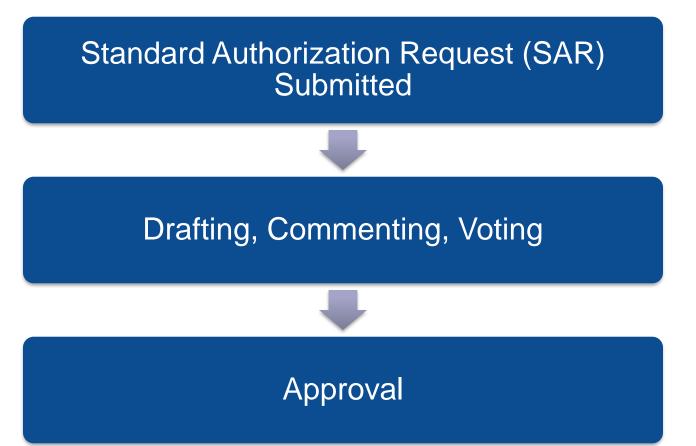
Appendix 3A to the Rules of Procedure: Standard Processes Manual





NERC Standards Development Process



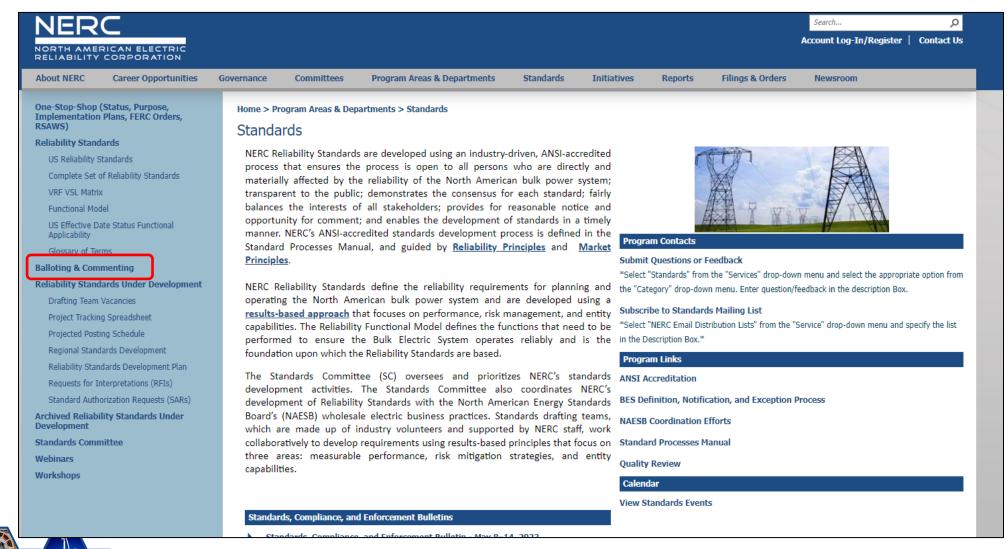






Balloting and Commenting







Balloting and Commenting



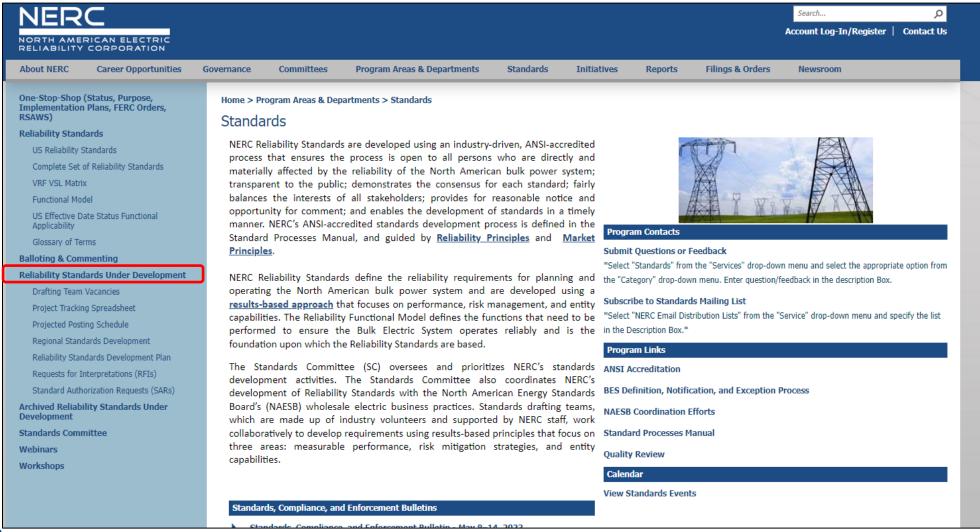
Current and Upcoming Ballots (Sorted by End Date)			
Project	Action	Start Date	End Date
2023 Standard Processes Manual Revisions to Address SPSEG Recommendations Draft 2	Additional Ballot and Non-binding Poll	5/19/2023	5/30/2023
2017-01 Modifications to BAL-003 Phase II Draft 2	Additional ballots and non-binding poll	5/23/2023	6/1/2023
2021-01 Modifications to MOD-025 and PRC-019 Draft 2	Additional Ballots and Non-binding Polls	5/30/2023	6/8/2023
2021-06 Modifications to IRO-010 and TOP-003 Draft 2	Additional Ballots and Non-binding Polls	6/9/2023	6/20/2023
2021-02 Modifications to VAR-002-4.1 Draft 2	Additional ballots and non-binding poll	6/14/2023	6/23/2023
Join Ballot Pools (Sorted by End Date)			
Project Action Start Date	End Date		
There are no items to show in this view of the "Reliability Standards Under Development - Commenting and	Balloting" list.		
Posted for Comment (Sorted by End Date)			
Project	Action	Start Date	End Date
2022-02 Modifications to TPL-001 and MOD-032 Footnote 13.d SAR	Comment Period	4/13/2023	5/12/2023
2023-04 Modifications to CIP-003 SAR	Comment Period	3/31/2023	5/15/2023
2023 Standard Processes Manual Revisions to Address SPSEG Recommendations Draft 2	Comment Period	4/13/2023	5/30/2023
2017-01 Modifications to BAL-003 Phase II Draft 2	Comment Period	4/18/2023	6/1/2023
2021-01 Modifications to MOD-025 and PRC-019 Draft 2	Comment Period	4/25/2023	6/8/2023
2021-06 Modifications to IRO-010 and TOP-003 Draft 2	Comment Period	5/5/2023	6/20/2023
2021-02 Modifications to VAR-002-4.1 Draft 2	Comment Period	5/10/2023	6/23/2023
ote: All SBS activity concludes at 8 p.m. Eastern			
BS Information Links			
017 SBS Enhancement Webinar Slides			





Projects Under Development



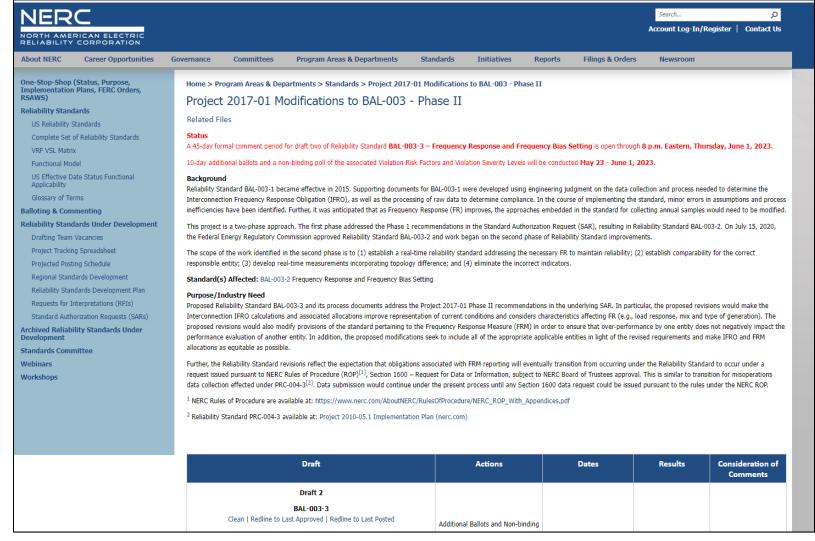






Project Page









Project Page



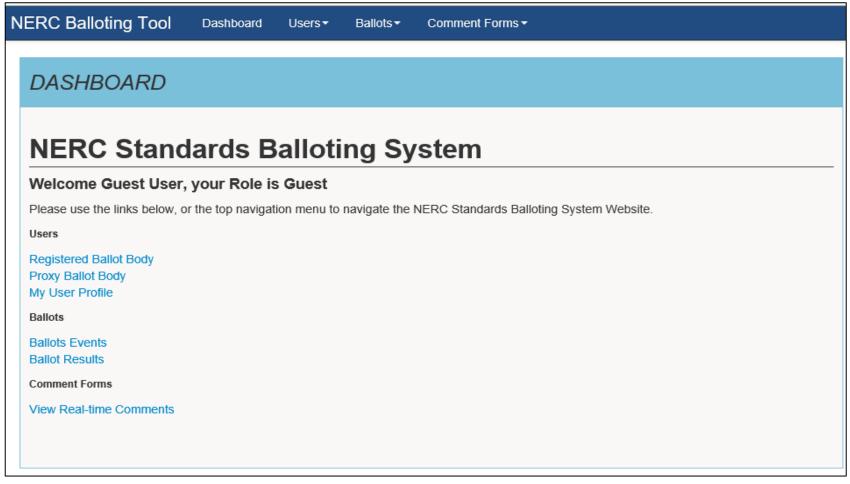
Draft	Actions	Dates	Consideration of Comments
Final Draft			
EOP-011-2 Clean Redline to Last Posted Redline to Last Approved IRO-010-4 Clean Redline to Last Posted Redline to Last Approved TOP-003-5 Clean Redline to Last Posted Redline to Last Approved Implementation Plan Supporting Materials VRF/VSL Justification	Final Ballots Info Vote	05/18/21 - 05/27/21	Ballot Results EOP-011-2 IRO-010-4 TOP-003-5
Draft 2 EOP-011-2 Clean Redline to Last Posted Redline to Last Approved IRO-010-4 Clean Redline to Last Posted Redline to Last Approved TOP-003-5 Clean Redline to Last Posted Redline to Last Approved Implementation Plan	Additional Ballots and Non-binding Polls Updated Info Info Vote	04/16/21 - 04/26/21	Ballot Results EOP-011-2 IRO-010-4 TOP-003-5 Non-binding Poll Results





Standards Balloting System





https://sbs.nerc.net/





Regional Standards



- Go Beyond, Add Detail to, or Cover Matters Not Addressed in NERC Reliability Standards
- Regional Standard BAL-001-TRE-2: Primary Frequency Response in the ERCOT Region
- Texas RE Standards Development Process Document





Be in the Know



- NERC Standards Balloting and Commenting Webpage
- Subscribe to NERC Standards Mailing List
 - NERC helpdesk: https://support.nerc.net/
- Weekly Standards, Compliance, & Enforcement Bulletin
- Standard Drafting Team Meetings Open meetings
- Industry Webinars





Stakeholder Groups



NERC Standards Review Forum (NSRF)

- Discusses standards projects under development
- Discusses enforceable standards
- Join the Standards Mailing List by contacting information@texasre.org
- See Texas RE's <u>Standards webpage</u> for more information

CIP Working Group (CIPWG)

- Discusses cyber security issues, include CIP Reliability Standards
- See ERCOT's <u>CIPWG page</u> for more information





Additional Resources



- Rules of Procedure Appendix 3A Standard Processes Manual
- NERC Standards Webpage
 - Reliability Standards
 - U.S. Enforcement Dates
 - Balloting and Commenting
- NERC Glossary of Terms
- NERC Standards Balloting System
- Texas RE <u>Standards Development Process</u>





Contact





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Executive Chief of Staff

rsm@texasre.org

512-583-4956





Upcoming Sessions



June 5 – Intro to Align

June 6 – Standards Development

June 8 – Compliance Monitoring

June 13 - CIP 201

June 14 - Foundations of O&P

June 15 - O&P 201

June 20 - Risk-Based Approach to Reliability

June 21 – Improving Self-Reporting 201

June 22 – NERC Data Submission, Events Analysis, and Guidelines

June 27 - Initial Engagement Submissions

June 29 – Reliability Services

JUNE 2023

Sun	Mon	Tue	Wed	Thu	Fri	Sat
28	29	30	31	1	2	3
4	5 January 10, 10, 10, 10, 10, 10, 10, 10, 10, 10,	distributive 707, p. 101	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	1





