

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Reliability Standards Development Plan

2023-2025

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RELIABILITY | RESILIENCE | SECURITY



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Background

Pursuant to Section 310 of the NERC Rules of Procedure, NERC is required to develop and provide to applicable governmental authorities an annual Reliability Standards Development Plan (RSDP) for Reliability Standards development. Each annual RSDP must include a progress report comparing results achieved to the prior year's RSDP. NERC is required to consider the comments and priorities of the applicable governmental authorities in developing and updating the annual RSDP. NERC also provides the RSDP to the NERC Standards Committee (SC) for review and posts the RSDP for industry comment.

As described herein, this RSDP for 2023-2025 builds upon the goals of the previous RSDPs.

Executive Summary

The 2023-2025 RSDP provides insight into standards development activities anticipated at the time of publication so that stakeholders may make available resources needed to accomplish the standards development objectives. Additional activities such as Requests for Interpretation and Regional Variance development may impact the plan and are included at this time. In order to help the industry understand resource requirements for each project, the RSDP now shows time frames and anticipated resources for each project under development.

This RSDP contemplates that the work of the Reliability and Security Technical Committee (RSTC) and working groups thereunder may result in more Standard Authorization Requests (SARs) and subsequent standards projects. It is also important to note that projects may be generated through the use of the Electric Reliability Organization risk framework.

Periodic Reviews and initiatives, such as the final recommendations of the Standards Efficiency Review (SER) project, also enable NERC to identify requirements that do little to promote reliability and should therefore be retired. Periodic Reviews will occur at a measured pace compared to the level of activity and pace of standards development during recent years. Additionally, Periodic Reviews will be aligned with the strategic consideration of reviewing standard families that are interrelated.¹ The Standards Grading effort for 2022 has been completed and results are included.

While most of the work in the next three years will focus on new SARs, Periodic Reviews, SER implementation, and Standards Grading, there may be new or emerging risks identified that could generate new standards development projects. NERC will continue to seek input and recommendations from the Reliability Issues Steering Committee (RISC) with regard to emerging or potential risks to Bulk Electric System (BES) reliability that may require revisions to existing standards or new standards development.

To help determine the impact of potential risk to BES reliability, NERC will use a variety of feedback mechanisms, including but not limited to, the Compliance Monitoring and Enforcement Program, RISC profiles, Events Analysis, and Compliance violation statistics, as well as any published “Lessons Learned.” The Regional Entities also have feedback mechanisms in place to solicit comments from industry and to help identify approaches to meet concerns and provide input to the standards. Input into standards will also continue to be coordinated with the North American Energy Standards Board as appropriate. In assessing feedback to create new or revised standards, NERC will focus on risk, reliability or security data, and enforcement information to determine whether a standard revision is the best tool to initially address the reliability risk.

¹ The Periodic Review Standing Review Team grades the standards prior to conducting Periodic Reviews. The team includes representatives from NERC, the Regional Entities, and RSTC. If the standard is revised through the standard development process in response to a Periodic Review recommendation(s), the Periodic Review Standing Review Team will re-grade the standard with the revised language.

Progress Report

Pursuant to Section 310 of the NERC Rules of Procedure, NERC offers the following progress report on Reliability Standards development.

FERC Directives

As of June 30, 2022, there are two² outstanding directives being resolved through the standards development process. The status of the Standards directives are reported quarterly to the NERC Board of Trustees (Board).

Continuing Projects

All of the other projects from the previous RSDP are complete, or are expected to be complete this year, except the following, which will continue into 2023:

1. Project 2017-01 [Modifications to BAL-003-1.1](#) (phase 2)
2. Project 2019-04 [Modifications to PRC-005-6](#)
3. Project 2020-02 [Modifications to PRC-024 \(Generator Ride-through\)](#)
4. Project 2020-04 [Modifications to CIP-012](#)
5. Project 2020-06 [Verifications of Models and Data for Generators](#)
6. Project 2021-01 [Modifications to MOD-025 and PRC-019](#)
7. Project 2021-02 [Modifications to VAR-002](#)
8. Project 2021-03 [CIP-002 Transmission Owner Control Centers](#)
9. Project 2021-04 [Modifications to PRC-002-2](#)
10. Project 2021-05 [Modifications to PRC-023](#)
11. Project 2021-06 [Modifications to IRO-010 and TOP-003](#)
12. Project 2021-07 [Extreme Cold Weather Grid Operations, Preparedness, and Coordination](#)
13. Project 2021-08 [Modifications to FAC-008](#)
14. Project 2022-01 [Reporting ACE Definition and Associated Terms](#)
15. Project 2022-02 [Modifications to TPL-001-5.1 and MOD-032-1](#)
16. Project 2022-03 [Energy Assurance with Energy-Constrained Resources](#)

Additional project information is available on the NERC website on the Standards web page.³

² The following projects are currently modifying standards to address directives: 2020-04 Modifications to CIP-012 (requirement for protections regarding the availability of communication links and data communicated between bulk electric system Control Centers). The second directive is a requirement to submit project schedules for one ongoing CIP project.

³ As of the date of publication, the subject web page resides at <http://www.nerc.com/pa/Stand/Pages/default.aspx>.

The following projects have been, or are planned to be, completed in 2022 (actual and anticipated Board adoption dates are noted):

1. Project 2016-02 [Modifications to CIP Standards](#) (anticipated Board adoption December 2022)
2. Project 2020-03 [Supply Chain Low Impact Revisions](#) (anticipated Board adoption November 2022)
3. Project 2020-04 [Modifications to CIP-012](#) (anticipated Board adoption November 2022)
4. Project 2020-05 [Modifications to FAC-001-3 and FAC-002-2](#) (adopted by the Board May 2022)
5. Project 2021-07 [Extreme Cold Weather Grid Operations, Preparedness, and Coordination \(Phase 1\)](#) (adopted by the Board October 2022)

2023 Projects

Projects Continuing into 2023

In determining high, medium, or low priority designations for projects as listed in this RSDP, the following factors were taken into consideration:

1. Outstanding regulatory directives with filing deadlines (High Priority)
2. RISC category rankings of high impact with consideration of probability of occurrence (High or Medium Priority)
3. Potential reliability risks from stakeholders provided through feedback mechanisms (High, Medium, or Low Priority, based on the risk)
4. Outstanding regulatory directives without regulatory deadlines or “soft directives” such as considerations (High or Medium Priority)
5. Outstanding requirements that are known candidates for retirement (Medium or Low Priority)
6. Any known adverse content and quality assessments (likely Low Priority, as any reliability gaps identified have already been addressed)

High Priority

- Project 2021-07 [Extreme Cold Weather Grid Operations, Preparedness, and Coordination](#) (drafting estimated to be completed in two phases over 2022-2023; first phase expected to be completed by September 2022 requiring 15 subject matter experts for approximately 175 work hours each for Phase 1 and Phase 2 of this project)
- Project 2021-03 [CIP-002 Transmission Owner Control Centers](#) (drafting estimated to be completed by August 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project). Three additional SARs pertaining to CIP-002 are assigned to this project. Additional subject matter experts are being solicited to address these SARs (drafting estimated to be completed by November 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2022-03 [Energy Assurance with Energy–Constrained Resources](#) (drafting estimated to be completed by February 2023 requiring approximately 12-15 industry subject matter experts for approximately 120 work hours each for the remaining part of this project)

Medium Priority

- Project 2017-01 [Modifications to BAL-003-1.1](#) (phase 2) (drafting estimated to be completed by February 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2020-02 [Modifications to PRC-024 \(Generator Ride-through\)](#) (drafting estimated to be completed by November 2023 requiring approximately 9 industry subject matter experts for approximately 120 work hours each for the remaining part of this project)

Low Priority

- Project 2019-04 [Modifications to PRC-005-6](#) (drafting estimated to be completed by August 2023 requiring approximately 13 subject matter experts for approximately 40 work hours each for this project)

- Project 2020-06 [Verifications of Models and Data for Generators](#) (drafting estimated to be completed by February 2023 requiring approximately 12 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-01 [Modifications to MOD-025 and PRC-019](#) (drafting estimated to be completed by May 2023 requiring approximately 12 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-02 [Modifications to VAR-002](#) (drafting estimated to be completed by May 2023 requiring approximately 13 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-04 [Modifications to PRC-002-2](#) (drafting estimated to be completed by May 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-05 [Modifications to PRC-023](#) (drafting estimated to be completed by May 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-06 [Modifications to IRO-010 and TOP-003](#) (drafting estimated to be completed by November 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-08 [Modifications to FAC-008](#) (drafting estimated to be completed by August 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2022-01 [Reporting ACE Definition and Associated Terms](#) (drafting estimated to be completed by August 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2022-02 [Modifications to TPL-001-5.1 and MOD-032-1](#) (drafting estimated to be completed by August 2023 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)

Other Projects Continuing into 2023

NERC Reliability Standards Efficiency Review Transition

In 2018, NERC began using both internal ERO Enterprise resources and industry resources to evaluate candidates for potential Reliability Standard retirements. NERC solicited industry participants to evaluate possible candidate requirements that may no longer be necessary to support reliability or address current risks to the Bulk Power System (BPS). Through open and transparent industry participation, the SER teams submitted a SAR to the SC in order to implement recommended changes to the body of Reliability Standards. The SAR was accepted at the August 2018 SC meeting, and the effort retired numerous standards and requirements in 2019.

The [Standards Efficiency Review Report and Transition Plan](#) outlines the Phase 1 and Phase 2 work, the additional recommendations, and closes out the SER. The SER recommendations are being implemented, which include Project 2021-06 Modifications to IRO-010 and TOP-003 regarding operational data exchange.

Standards Development Projects Overview

The NERC RSTC subcommittees, working groups, and task forces conduct work plan activities as assigned. Known and emerging risks are reviewed and assessed and may result in a SAR being submitted to initiate a standards development project. Also, as industry works to operate a reliable and secure grid, a SAR may be submitted to address risks.

As a result of the growth in use of inverters as part of the bulk power system, the NERC Inverter-based Resource (IBR) Performance Task Force (IRPTF) undertook an effort to perform a comprehensive review of all NERC Reliability Standards to determine if there were any potential gaps or improvements. The IRPTF identified several issues as part of this effort and documented its findings and recommendations in the "[IRPTF Review of NERC Reliability Standards White Paper](#)," which was approved in March 2020 by the Operating Committee and the Planning Committee (now part of the Reliability and Security Technical Committee (RSTC)). This assessment generated a number of projects listed in the RSDP.

The ERO's focus on cyber security is also at the forefront of addressing reliability risks. Standard development projects addressing virtualization and protecting cyber assets and communication links are a result of continued actions to keep the grid secure.

Other Projects Commencing

Currently, no Reliability Standards meet the criteria for periodic review in 2023. SARs, emerging risks to the BPS, and FERC regulatory directives that may occur subsequent to publishing this RSDP may prompt additional projects through 2023.

Standards Grading Metrics

The NERC SC endorsed the initial grading system for standards as a metric on March 9, 2016. The grading activity was directed by the NERC Board and was conducted by the Periodic Review Standing Review Team (PRSRT) as set forth in the Periodic Review process.⁴ The PRSRT is comprised of the following:

- SRT Chair: SC Chair or (or SC Chair delegate)
- Representation from the Reliability and Security Technical Committee (RSTC)
- Representation from the Regional Entities
- NERC staff

The grading metrics include possible scores of 0-4 for content and 0-13 for quality. The set of standards chosen each year for grading, according to the criteria in the above section, will be graded to prioritize, and be a factor in determining the sequence they should enter into the Periodic Review process. At least one industry comment period will take place to allow industry to comment on the grading performed by the PRSRT. The grades, based on the PRSRT and any industry input, will be finalized, appended to the RSDP, and used to complete the prioritization each year. Additionally, input from other standards initiatives such as the Standards Efficiency Review (now completed), are being considered and coordinated with the Standards Grading activities.

⁴ The process is detailed in the Periodic Review template, which is available at:
<https://www.nerc.com/pa/Stand/Resources/Documents/Periodic%20Review%20Template%20Feb%202016.pdf>.

Attachment 1: Final Grades for Standards Considered in 2022

The PRSRT was tasked with using metrics from the 2013 Independent Experts Review Panel to assign numeric grades to instruct future Periodic Review teams.

While the PRSRT’s final standards grades are important data points for the Periodic Reviews to consider, they are intended as one of many inputs to facilitate discussion during the reviews. Detailed analysis and background information on the Standards Grading process and PRSRT recommendations for periodic review project prioritization based on 2022 grades are posted on the [project page](#).

2022 Standards Grades			
Standard	Requirement	Content Average	Quality Average
PER-003-2	R1.	4.00	12.67
PER-003-2	R2.	4.00	12.33
PER-003-2	R3.	4.00	12.67
PER-005-2	R1.	4.00	13.00
PER-005-2	R2.	4.00	13.00
PER-005-2	R3.	4.00	12.67
PER-005-2	R4.	4.00	13.00
PER-005-2	R5.	3.67	13.00
PER-005-2	R6.	3.67	13.00
PER-006-1	R1.	3.67	13.00
TPL-007-4	R1.	4.00	13.00
TPL-007-4	R2.	4.00	13.00
TPL-007-4	R3.	4.00	13.00
TPL-007-4	R4.	3.33	10.67
TPL-007-4	R5.	4.00	12.67
TPL-007-4	R6.	3.67	12.00
TPL-007-4	R7.	4.00	12.00
TPL-007-4	R8.	3.67	12.00
TPL-007-4	R9.	4.00	12.67
TPL-007-4	R10.	3.67	12.00
TPL-007-4	R11.	4.00	12.00
TPL-007-4	R12.	4.00	12.00
TPL-007-4	R13.	4.00	12.67