UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

North American Electric Reliability Corporation	**)** **)**	**Docket Nos. RM05-17-000** **RM05-25-000** **RM06-16-000**

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION INFORMATIONAL FILING OF RELIABILITY STANDARDS DEVELOPMENT PLAN 2024–2026

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December 15, 2023

TABLE OF CONTENTS

I. NOTICES AND COMMUNICATIONS 2
II. BACKGROUND 2
III. 2024 DEVELOPMENT PLAN 3
A. Summary of the 2024 Development Plan 3
B. 2023 Progress Report 4
IV. CONCLUSION 4

Attachment A *Reliability Standards Development Plan: 2024–2026*

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NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION INFORMATIONAL FILING OF RELIABILITY STANDARDS DEVELOPMENT PLAN 2024–2026

The North American Electric Reliability Corporation ("NERC") hereby submits its 2024–2026 Reliability Standards Development Plan ("2024 Development Plan") in accordance with Section 310 of the NERC Rules of Procedure.[1] The 2024 Development Plan, included herein as **Attachment A**, provides a status update on active development projects, a forecast of future work to be undertaken by NERC and its stakeholders throughout the upcoming year, and a progress report comparing results achieved to the prior year's Reliability Standards Development Plan. The NERC Board of Trustees ("NERC Board") approved the 2024 Development Plan on December 12, 2023. NERC submits this filing and the attached 2024 Development Plan for informational purposes only.

[1] Section 310 of NERC's Rules of Procedure requires NERC to develop and provide an annual Reliability Standards Development Plan for development of Reliability Standards to the applicable governmental authorities. Under that section, NERC is also required to consider comments and priorities of the applicable governmental authorities in any updates made to the plan, and the plan should compare current accomplishments with the prior year's plan. *See* NERC's Rules of Procedure, accessible online at: https://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx.

I. NOTICES AND COMMUNICATIONS

Notices and communications regarding this filing may be addressed to the following:

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II. BACKGROUND

Pursuant to Section 310 of the NERC Rules of Procedure, NERC submitted an initial version of a plan for Reliability Standards development, titled the *Reliability Standards Development Plan: 2007–2009*, to the Federal Energy Regulatory Commission ("FERC") in 2006. NERC has since updated the plan annually, and the 2024–2026 version of the plan is presented in this filing. Consistent with previous versions, the 2024 Development Plan is filed for informational purposes and no specific action is requested at this time.

The 2024 Development Plan is intended to:

1. Serve as a management tool to guide and coordinate the development of Reliability Standards and provide benchmarks for assessing progress;

2. Serve as a communication tool for coordinating standards development work with applicable governmental agencies in the United States and Canada and for engaging stakeholders in Reliability Standards development activities; and

3. Provide a basis for developing annual plans and budgets for the NERC Reliability Standards Program.

As with each prior year's plan, NERC obtained stakeholder input on the 2024 Development Plan. As detailed in Section III, NERC submits this filing to summarize the 2024 Development Plan and inform FERC and other interested parties of projects noted in the 2023 Development Plan that will continue into 2024.

III. 2024 DEVELOPMENT PLAN

A. Summary of the 2024 Development Plan

The 2024 Development Plan identifies the current plans and priorities for development and modification of NERC Reliability Standards in the immediate three-year time horizon. As noted in the Project Prioritization section of the Plan, high priority projects for 2024 include the following priorities identified by NERC and FERC:

1. Reliability Standards addressing inverter-based resources, consistent with FERC's Order 901[2];
2. Reliability Standards addressing extreme weather preparedness and transmission planning;
3. Reliability Standards addressing energy assurance; and
4. Priority Critical Infrastructure Protection ("CIP") projects, including Reliability Standards to address internal network security monitoring, virtualization, and other topics.

Each new or continuing Reliability Standard Project identified in the 2024 Development Plan has been assigned a priority of either high, medium, or low. These assignments are based on the following criteria: (i) outstanding regulatory directives with filing deadlines (high priority); (ii) RISC category rankings of high impact with consideration of probability of occurrence (high or medium priority); (iii) potential reliability risks identified through feedback mechanisms (high, medium, or low priority, based on the risk); (iv) outstanding regulatory directives without regulatory deadlines or regulatory considerations (high or medium priority); (v) outstanding requirements that are known candidates for retirement (medium or low priority); and (vi) any known adverse content and quality assessment (likely low priority).

[2] *Reliability Standards to Address Inverter-Based Resources*, Order No. 901, 185 FERC ¶ 61,042 (2023) (directing NERC to develop Reliability Standards to address inverter-based resources issues in three tranches due November 2024, November 2025, and November 2026, and to submit a work plan describing how it will develop those standards).

The 2024 Development Plan reflects projects and priorities as of the date the Plan was prepared; new projects may be initiated in 2024 to address regulatory directives or reliability needs identified throughout the year.

B. 2023 Progress Report

Please refer to pages 1-2 in the attached 2024 Development Plan for a progress report on projects completed in full or in part from the prior year's plan. This progress report reflects anticipated completion dates as of the time the report was prepared; actual completion dates may vary. NERC maintains up to date project information on its Standards web page.[3]

IV. CONCLUSION

As discussed above, the 2024 Development Plan was developed in accordance with Section 310 of the NERC Rules of Procedure and identifies the current plans and priorities for development and modification of NERC Reliability Standards in the immediate three-year time horizon. NERC submits this filing and the attached 2024 Development Plan for informational purposes only.

Respectfully submitted,

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[3] NERC Reliability Standards, https://www.nerc.com/pa/Stand/Pages/default.aspx.

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding. Dated at Washington, D.C. this 15th day of December, 2023.

/s/ Lauren A. Perotti

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Counsel for the North American Electric Reliability Corporation

ATTACHMENT A

RELIABILITY STANDARDS DEVELOPMENT PLAN

2024–2026

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Reliability Standards Development Plan

2024-2026

December 12, 2023

RELIABILITY | RESILIENCE | SECURITY




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Table of Contents

Background iii
Executive Summary iv
Progress Report 1
FERC Directives 1
Continuing Projects 1
Project Prioritization 3
High Priority 3
Medium Priority 4
Low Priority 4
Standards Development Projects Overview 7
Standards Grading 8

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.[1] 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 2024-2026 builds upon the goals of the previous RSDPs.

[1] NERC Rules of Procedure, Section 310, effective August 25, 2022, https://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx

Executive Summary

The 2024-2026 RSDP provides insight into standards development activities anticipated at the time of publication so that stakeholders may adjust resources to ensure the completion of standards development objectives. Other standard development processes, such as Developing an Interpretation and Developing a Variance, may impact the RSDP and are included herein.[2] To help the industry understand resource requirements for each project, the RSDP includes approximated time frames and anticipated resource expectations 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.[3] It is also important to note that projects may be generated using the Electric Reliability Organization risk framework.

Periodic Reviews and initiatives also enable NERC to identify requirements that do not sufficiently improve reliability and should, therefore, be retired. Periodic Reviews will be initiated to ensure that minimum requirements and expectations for periodic reviews are met.

While most of the work in the next three years will focus on new SARs and multiple projects to address inverter–based resources, new or emerging risks may be identified that could generate new standards development projects. NERC will continue to seek input and recommendations from the Reliability Issues Steering Committee (RISC) regarding emerging or potential Bulk Electric System (BES) reliability risks that may require revisions to existing standards or new standards development.[4]

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 ERO Enterprise Compliance Monitoring and Enforcement Program (CMEP), RISC reports, Events Analysis (EA), as well as any published EA Lessons Learned. The Regional Entities also have feedback mechanisms to solicit industry comments. This additional feedback helps implement approaches to address industry concerns and NERC standards. Input into standards will continue to coordinate with the North American Energy Standards Board as appropriate. In assessing feedback with standards and the standards development process, NERC focuses on available resiliency, reliability, and security information. Data from the CMEP is leveraged to determine whether a standard revision is needed to address an identified risk effectively.

[2] A full list of standard development processes are detailed in the Standards Processes Manual, NERC Rules of Procedure – Appendix 3A, https://www.nerc.com/AboutNERC/RulesOfProcedure/Appendix_3A_SPM_Clean_Mar2019.pdf

[3] Reliability and Security Technical Committee, https://www.nerc.com/comm/RSTC/Pages/default.aspx

[4] Reliability Issues Steering Committee, https://www.nerc.com/comm/RISC/Pages/default.aspx

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 October 30, 2023, eleven outstanding directives are being resolved through the standards development process. The status of the Standards directives is reported quarterly to the NERC Board of Trustees (Board).

Continuing Projects

The other projects from the previous RSDP are complete or are expected to be complete this year, except the following (new and existing), which will continue into 2024 and beyond:

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 2020-06 Verifications of Models and Data for Generators
5. Project 2021-01 Modifications to MOD-025 and PRC-019
6. Project 2021-02 Modifications to VAR-002
7. Project 2021-03 CIP-002 Transmission Owner Control Centers
8. Project 2021-04 Modifications to PRC-002-2
9. Project 2021-07 Extreme Cold Weather Grid Operations, Preparedness, and Coordination (phase 2, EOP-012-2)
10. Project 2021-08 Modifications to FAC-008
11. Project 2022-02 Modifications to TPL-001-5.1 and MOD-032-1
12. Project 2022-03 Energy Assurance with Energy–Constrained Resources
13. Project 2022-04 EMT Modeling
14. Project 2022-05 Modifications to CIP-008 Reporting Threshold
15. Project 2023-01 EOP-004 IBR Event Reporting
16. Project 2023-02 Performance of IBRs
17. Project 2023-03 Internal Network Security Monitoring (INSM)
18. Project 2023-04 Modifications to CIP-003
19. Project 2023-05 Modifications to FAC-001 and FAC-002
20. Project 2023-06 CIP-014 Risk Assessment Refinement
21. Project 2023-07 Modifications to TPL-001-5.1 Transmission System Planning Performance Requirements for Extreme Weather
22. Project 2023-08 Modifications of MOD-031 Demand and Energy Data

Additional project information is available on the NERC website on the Standards web page.[5]

The following projects have been, or are planned to be, completed in 2023 (actual and anticipated Board adoption dates are noted):

1. Project 2016-02 Modifications to CIP Standards (anticipated Board adoption February 2024)
2. Project 2020-04 Modifications to CIP-012 (anticipated Board adoption December 2023)
3. Project 2020-06 Verifications of Models and Data for Generators (anticipated Board adoption November 2025)
4. Project 2021-05 Modifications to PRC-023 (adopted by the Board February 2023)
5. Project 2021-06 Modifications to IRO-010 and TOP-003 (adopted by the Board August 2023)
6. Project 2021-07 Extreme Cold Weather Grid Operations, Preparedness, and Coordination (Phase 2) (EOP-011-4 and TOP-002-5 adopted by the Board October 2023)
7. Project 2022-01 Reporting ACE Definition and Associated Terms (anticipated Board adoption February 2024)

[5] As of the date of publication, the subject web page resides at http://www.nerc.com/pa/Stand/Pages/default.aspx.

Project Prioritization

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 and NERC Board of Trustees directives with filing deadlines (High Priority)
2. RISC category rankings of high impact and NERC annual work plan priorities with consideration of probability of occurrence (High or Medium Priority)
3. Potential reliability risks from stakeholders and technical committees 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 2016-02 Modifications to CIP Standards (drafting estimated to be completed by December 2023 requiring seven industry subject matter experts for approximately 100 work hours each for the remaining part of this project).
- Project 2020-02 Modifications to PRC-024 (Generator Ride-through) (drafting estimated to be completed by May 2024, requiring approximately nine industry subject matter experts for approximately 120 work hours each for the remaining part of this project).
- Project 2020-04 Modifications to CIP-012 (drafting estimated to be completed by December 2023, requiring approximately 10 subject matter experts for approximately 60 work hours each for this project). Delete?
- Project 2021-03 CIP-002 Transmission Owner Control Centers (drafting estimated to be completed by December 2024 – the assigned of the Project 2016-02 SAR that relates to TOCCs, requiring approximately eight subject matter experts for approximately 40 work hours each for this project). Three additional SARs pertaining to CIP-002 are assigned to this project (drafting estimated to be completed by December 2024). Additional subject matter experts are being solicited to address these SARs.
- Project 2021-04 Modifications to PRC-002-2 (Phase 2) (drafting estimated to be completed by October 2024 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project)
- Project 2021-07 Extreme Cold Weather Grid Operations, Preparedness, and Coordination (drafting estimated to be completed in two phases over 2022-2024; the first phase was completed in September 2022. Phase 2, standards EOP-011-4 and TOP-002-5 was completed in October 2023, Phase 3, EOP-012-2, is expected to be completed by February 2024, requiring 14 subject matter experts for approximately 40 work hours each for the remainder of the project).
- Project 2022-03 Energy Assurance with Energy–Constrained Resources (drafting estimated to be completed by December 2024 requiring approximately 14 industry subject matter experts for approximately 120 work hours each for the remaining part of this project).
- Project 2023-02 Performance of IBRs (drafting estimated to be completed by October 2024, requiring approximately 14 subject matter experts for approximately 80 work hours each for this project).

- Project 2023-03 Internal Network Security Monitoring (INSM) (drafting estimated to be completed by March 2024, requiring approximately 10 subject matter experts for approximately 50 work hours each for this project).
- Project 2023-04 Modifications to CIP-003 (drafting estimated to be completed by August 2024, requiring approximately 12 subject matter experts for approximately 60 work hours each for this project).
- Project 2023-06 CIP-014 Risk Assessment Refinement (drafting estimated to be completed by December 2024, requiring approximately 10 subject matter experts for approximately 40 work hours each for this project).
- Project 2023-07 Modifications to TPL-001-5.1 Transmission System Planning Performance Requirements for Extreme Weather (drafting estimated to be completed by July 2024, requiring approximately 10 subject matter experts for approximately 60 work hours each for this project).

Medium Priority

- Project 2020-06 Verifications of Models and Data for Generators (drafting estimated to be completed by October 2025, requiring approximately 12 subject matter experts for approximately 60 work hours each for this project).
- Project 2021-01 Modifications to MOD-025 and PRC-019 (drafting estimated to be completed by December 2025 requiring approximately 11 subject matter experts for approximately 60 work hours each for this project).

Low Priority

- Project 2017-01 Modifications to BAL-003-1.1 (phase 2) (drafting estimated to be completed by May 2025, requiring approximately 10 subject matter experts for approximately 40 work hours each for this project).
- Project 2019-04 Modifications to PRC-005-6 (drafting estimated to be completed by May 2025, requiring approximately 13 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 2025, requiring approximately 13 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 December 2025, requiring approximately 10 subject matter experts for approximately 60 work hours each for this project).
- Project 2022-01 Reporting ACE Definition and Associated Terms (drafting estimated to be completed by December 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 (project to be completed in phases with MOD-032 drafting as Phase 1; drafting estimated to be completed by October 2026 (Phase 1) requiring approximately 10 subject matter experts for approximately 60 work hours each for this project and Phase 2 drafting estimated to be completed by November 2024).
- Project 2022-04 EMT Modeling (drafting estimated to be completed by October 2026, requiring approximately 10 subject matter experts for approximately 40 work hours each for this project).
- Project 2022-05 Modifications to CIP-008 Reporting Threshold (drafting estimated to be completed by August 2026, requiring approximately 10 subject matter experts for approximately 80 work hours each for this project).
- Project 2023-01 EOP-004 IBR Event Reporting (drafting estimated to be completed by August 2024, requiring approximately 12 subject matter experts for approximately 60 work hours each for this project).

- Project 2023-05 Modifications to FAC-001 and FAC-002 (drafting estimated to be completed by October 2025, requiring approximately 10 subject matter experts for approximately 40 work hours each for this project).
- Project 2023-08 Modifications of MOD-031 Demand and Energy Data (drafting estimated to be completed by October 2025 requiring approximately 10 subject matter experts for approximately 40 work hours each for this project).

Over the past two years, NERC Standards Development has seen a tremendous increase in the number of projects. This is due to the need to address grid transformation regarding inverter-based resources and Distributed Energy Resources, cyber security risks, and extreme weather. Also, the release of FERC Order No. 901 has impacted the prioritization of work.

To date there are 25 projects, with eight initiated in 2021, five in 2022, and eight in 2023. Also, 11 FERC directives

must be addressed through the standards development process, in addition to certain projects NERC has identified as high priority due to reliability risk identified through event reports or other studies, which have resulted in an increase in volume of work. Due to the recent release of FERC Order No. 901 the project prioritization was revisited and is reflected in the table below.

As a part of the prioritization, NERC staff has reviewed the RISC Report, input from the RSTC, the Standing Committee Coordination Group, and 2023 NERC work plan priorities. As a result, personnel resources will focus on completing the following in 2024:

Completed By the End of 2024		
2020-02 Modifications to PRC-024 (generator ride-through)	2021-03 Modifications to CIP-002 (TOCC)	2021-07 Extreme Cold Weather
2021-04 Modifications to PRC-002 (data sharing)	2016-02 Virtualization	2023-07 TPL-001 Extreme Weather
2023-02 Performance of IBRs	2023-03 Internal Network Security Monitoring	2022-03 Energy Assurance (Operations)
	2023-04 CIP-003 Low Impact Criteria	
	2023-06 Physical Security	

Standards Development Projects Overview

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 the use of inverters as part of the Bulk Power System (BPS), 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 RSTC). This assessment generated several 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 internal network security monitoring, reporting threshold for Cyber Security Incidents, and Transmission Planning Assessments result from continued actions to keep the grid secure.

Other Projects Commencing

The Reliability Standard IRO-006-5 Reliability Coordination – Transmission Loading Relief meets the criteria for periodic review in 2024. SARs, emerging risks to the BPS, and FERC regulatory directives that may occur subsequent to publishing this RSDP may prompt additional projects through 2024 and periodic reviews may be delayed.

Standards Grading

At the joint Standards Committee (SC) and Compliance and Certification Committee (CCC) meeting on July 20, 2022, the committees discussed the efficacy of the annual Standards Grading process and potential opportunities for improvement. The two committees agreed there was a need for a joint task force to review the Standards Grading process, including the need, the methodology, and the outputs. Volunteers from both committees were solicited, and a task force was formed. Recommendations will be provided once the task force has completed its review.