

RELIABILITY & SECURITY

Workshop - Salt Lake City, UT

March 26–27, 2024



NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Standards Prioritization

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March 26, 2024

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What You Will Learn and Why it Matters

- Understand how NERC's work plan priorities and FERC directives shape the current Standards Development project prioritization
- Public awareness of prioritization in Standards Development assists industry in allocation of resources and efforts

- 11 high priority projects after reprioritization
- Anticipated SARs to address FERC order 901
 - Working with Engineering Department and SPIDERWG and to make sure all aspects of order covered
 - Any identified areas missing will have a new SAR written
- 2024 Board adoption dates
 - Feb 2024 – Cold Weather (*Adopted February 15, 2024*)
 - May 2024 – Internal Network Security Monitoring and Virtualization
 - Oct 2024 – IBR performance and disturbance monitoring projects related to FERC Order 901
 - Dec 2024 – Extreme Weather and any remaining high priority projects

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

- 13 medium and low priority projects
- Will not post for formal comment/ballot in first half of 2024
 - Only informal postings to solicit feedback during this time
 - Allow industry to focus on postings for high priority projects
- Projects to be reevaluated following conclusion of high priority projects
- Anticipated 2025 Board Adoption Dates and Beyond

Completed By 2025 and Beyond		
2022-05 CIP-008 Reporting Threshold	2020-06 Verification of Model and Data for Generators (Excluding IBR Definitions)	2021-01 Verification and data reporting for active and reactive power
2023-09 Risk Management for Third Party Cloud Services	2023-01 EOP-004 IBR Event Reporting	

Completed By 2025 and Beyond		
2017-01 Modifications to BAL-003-1.1	2019-04 Modifications to PRC-005-6	2021-02 Modifications to VAR-002-4.1
2021-08 Modifications to FAC-008	2023-05 FAC-001/FAC-002 DER	2022-02 MOD-032, TPL-001 Footnote 13d
2022-04 EMT Models in NERC MOD, TPL, FAC Standards		2023-08 MOD-031 Demand and Energy

- SARs also submitted by feedback loops are expected
- Five SARs on the horizon being drafted by Engineering and RSTC working groups

A map of North America, including the United States, Canada, and Mexico. A horizontal band of three shades of blue (dark, medium, and light) stretches across the middle of the map, passing through the United States. The text "Questions and Answers" is centered over this band.

Questions and Answers

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Standards Development FERC Order 901

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March 26, 2024

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- Understand the overall Standards Development approach to addressing FERC Order No. 901
- Create public awareness of the scope of upcoming changes to Reliability Standards related to inverter-based resources and distributed energy resources
- Promote early and active participation in projects that address FERC directives and the NERC work plan for Order No. 901

- FERC Order 901
 - Issued October 2023
 - Includes 4 Milestones dates through November 2026
 - Address wide spectrum of IBR related performance issues and Reliability Standards
 - Will require continual coordination between active Standards projects



General Milestone Summary

Milestone 1:
Submit
Information
Work Plan

January
2024

November
2024

Milestone 3:
Modeling Data
Sharing and
Validation based on
Performance

November
2025

Milestone 2: IBR
Performance based on
disturbance monitoring
data requirements and
post-event analytics

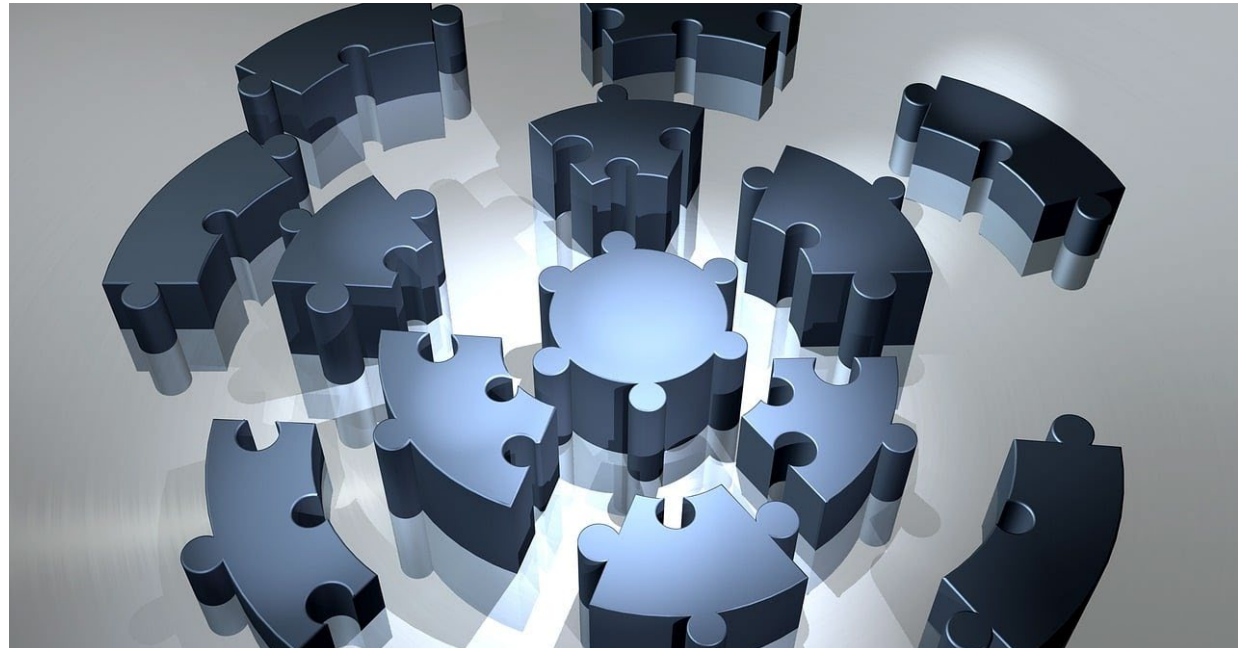
Milestone 4: New
Requirements for
Operational and Planning
Studies to Leverage
Performance Data

November 2026

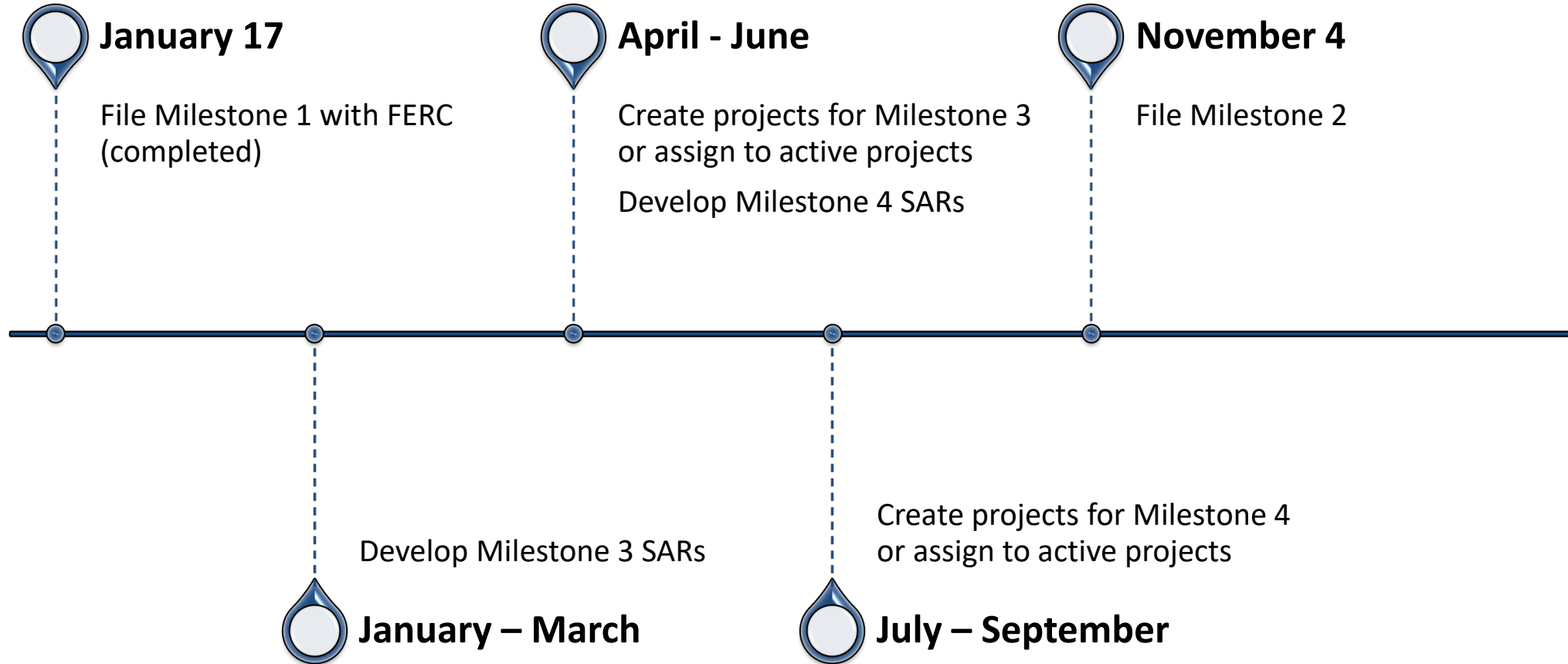
- Key Factors Included in Strategy
 - Ongoing prioritization of NERC Standards Projects
 - Continual coordination between NERC Engineering, Legal, and Standards
 - Ongoing communication to industry



- Continual coordination between NERC Engineering, Legal, and Standards
 - Ensure new SARs meet all FERC directives and NERC expectations
 - Ensure upstream/downstream projects coordinate between developers and the drafting team leadership
- Ensure that approach to new SARs account for existing projects
- Ensure performance-based modeling can be built throughout and is effective



Next Steps – 2024 Timeline



Milestone 3: Data Sharing and Model Validation

File November 2025

- **Complete Active Projects:**
 - Project 2022-02 Modifications to TPL-001-5.1 and MOD-032-1
 - Project 2023-05 FAC-001, FAC-002
 - Project 2023-08 MOD-031 Demand and Energy
 - Project 2020-06 Verifications of Models and Data for Generators
 - Project 2021-01 Modifications to MOD-025 and PRC-019
- **Complete New Projects to address:**
 - Data Sharing for Registered IBRs, Unregistered IBRs, and DERs

2025 Stretch Targets

- **Create SARs (as needed) and begin new Projects to address Planning and Operational Studies for:**
 - Unregistered IBRs, DER, and use of performance data
- **Perform Gap Analysis on downstream data impacts**

Milestone 4: Planning and Operational Studies

File November 2026

- **Complete Active Projects:**
 - Project 2022-02 (Modifications to TPL-001-5.1 and MOD-032-1)
 - Project 2022-03 (Energy Assurance with Energy-Constrained Resources),
 - Project 2023-07 (Transmission System Planning Performance Requirements for Extreme Weather)
- **Complete New Projects to address Planning and Operational Studies for:**
 - Registered IBRs, Unregistered IBRs, and DERs

2026 Stretch Targets

- Complete Project 2022-04 (EMT Modeling)
- Integrate EMT Modeling into:
 - Model validation processes
 - Operational and Planning assessments

- Ongoing communication to industry
 - Maintain single source location for information updates on 901 development
 - Coordinate updates with other IBR related efforts (new registrations)
 - Updates to FERC
 - Updates to MRC and NERC Board of Trustees (including new BOT Regulatory Oversight Committee)
 - Updates to Standards Committee and subcommittees
 - Individual Project pages
 - Information included with Formal/Informal Comment Period Announcements
 - Individual/joint Standard Project webinars
 - Updates to RSTC/IRPTF/SPIDERWG

A map of North America is shown in the background. A horizontal band, consisting of a dark blue stripe over a lighter blue stripe, runs across the middle of the map, passing through the Great Lakes region. The text "Questions and Answers" is centered over this band.

Questions and Answers