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September 2026 NERC Update

ERCOT IBRWG

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September 18, 2026**



NERC Standards Development Update for FERC Order 901

Milestone 2 – Wrapping up revisions, preparing for compliance and FERC-requested monitoring

- PRC-028-1, PRC-029-1, and PRC-030-1

Project 2025-05 – Ride-through Revisions PRC-029-2

- Version & Implementation Plan passed final ballot on August 7 and filed with FERC
- Revised (Ver 2) Compliance Monitoring and Enforcement Program (CMEP) Practice Guide: PRC-029-1 Enforcement Discretion posted on September 10
- *Implementation of Frequency and Voltage Ride-through Requirements for IBRs* still in draft



Milestone 3 – Approved by FERC in February 2026

Project 2020-06 – Verification of Models and Data for Generators

- RSAW posted for MOD-026-2

Project 2021-01 – System Model Validation with IBRs

- RSAW posted for MOD-033-3

Project 2022-02 – Uniform Modeling Framework for IBR

- RSAWS still in draft: MOD-032-2, TOP-003-8, IRO-010-6

Milestone 4 – Wrapping up

Project 2025-03 – Order 901 Operational Studies

- Standards: TOP-003-9, FAC-011-5
- Version and Implementation Plan passed ballot on August 7; no final ballot needed, sent to NERC Board for approval

Project 2025-04 – Order 901 Planning Studies

- Standards: TPL-001-6
- Final ballot passed, July 23 – headed to NERC Board



September 17 (12:00 p.m. – 3:00 p.m. Central) Agenda Technical Presentations

- Power Hardware-In-The-Loop Testing of Grid-Forming Inverter – Hugo N. Villegas Pico (Iowa State University)
- Evaluation of using GFM STATCOM and BESS for Transient Voltage Support in a Utility Footprint – Deepak Ramasubramanian, Lenna Lederman (EPRI)

Next - October 17 (12:00 p.m. – 3:00 p.m. Central) : [Join meeting](#) ID: 298 752 206 190 36 | Passcode: iu6Z2bL2

Work Plan Item #	Task Name	Task Description	Due Date
EMTWG 9	Uniform User Interface and Internal Structure for IBR EMT Models Approved by RSTC September 9, 2026	Collaboration with Load Modeling Working Group. Proposes a uniform internal structure for IBR EMT plant models and a standardized test harness interface.	Complete
EMTWG 12	EMT Modeling and Simulation Considerations for Large Loads	Collaboration with Load Modeling Working Group and Large Load Task Force. Documents EMT modeling needs, considerations, and state of the art practices for representing large loads (data center, crypto-mining, etc.).	12/30/2026
8	Reliability Guideline: Recommended Approach to Interconnection Studies for BPS-Connected Inverter-Based Resources	Focused guidance on improving the study practices for BPS-connected inverter-based resources, particularly with increasing penetrations of these resources and the growing complexity of performing sufficient studies to ensure BPS reliability.	12/31/2026
24	Reliability Guideline: BPS-Connected IBR Commissioning Best Practices Comments in Review	Reliability guideline to highlight best practices for commissioning BPS-connected inverter-based resources to ensure appropriate protection and controls are configured and that models and studies match actual installed operational capabilities.	4/30/2026
27	White Paper: IBR Equipment Model Validation Posted for Public Comments August 4, 2026 to September 3, 2026	Provide guidance on unit model validation practices, criteria and sample reports and templates for inverters and power plant controller models.	6/30/2026

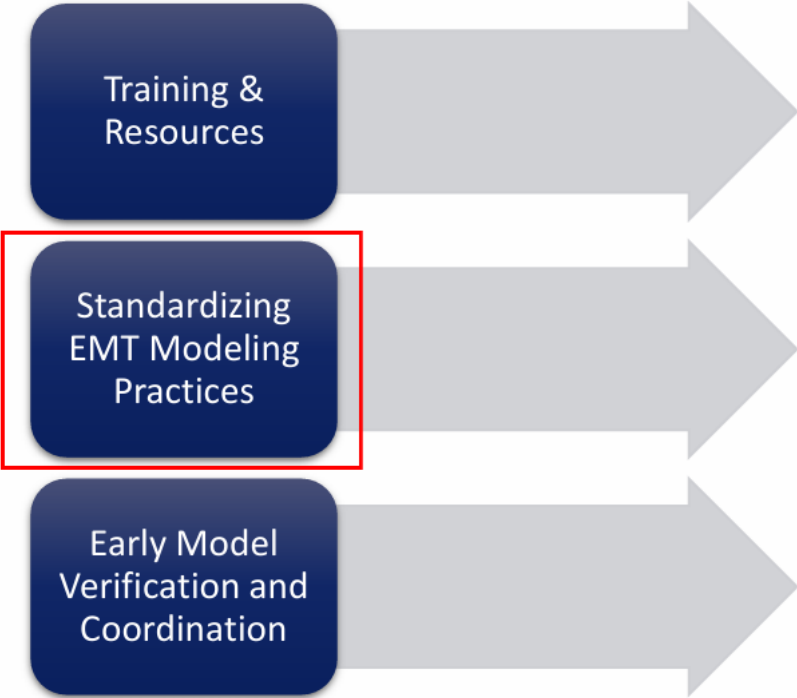


Electro-Magnetic Transient (EMT) Modeling Challenges

- Increasing requirements for EMT models (including the upcoming MOD-026-2)
- No widely adopted guidance for establishing a uniform user interface (UI) for EMT-based IBR plant models
- EMT models vary significantly across OEM in user interface
 - Difficult to interpret model parameters and signals
 - Complicates model validation, parameter verification, and model integration for different studies
- Need for efficient testing of EMT models of IBRs

EMT Working Group four-pillar mission:

Best Practices Guidance	Recommended Practices	Resources	Outreach and Education
• White Papers • Technical Reference Documents	• Reliability Guidelines	• Suggested Reading List • Technical Presentations	• Workshops • Webinars



Findings from EMT Adoption Survey,
EMTWG Work Item #4

- Work Item #3** In Progress
 - EMT Modeling Resources Repository
- Work Item #6** In Progress
 - IBR Plant Model Benchmarking – PSPD vs. EMT
- Work Item #8** In Progress
 - EMT Model Portability and Interoperability
- Work Item #9** In Progress
 - Uniform Interface and Internal Structure for IBR Plant Models
- Work Item #10** In Progress
 - EMT Methods for Disturbance Ride Through Performance Evaluation
- Work Item #12** In Progress
 - EMT Modeling Considerations for Large Loads
 - Collaboration with LLWG



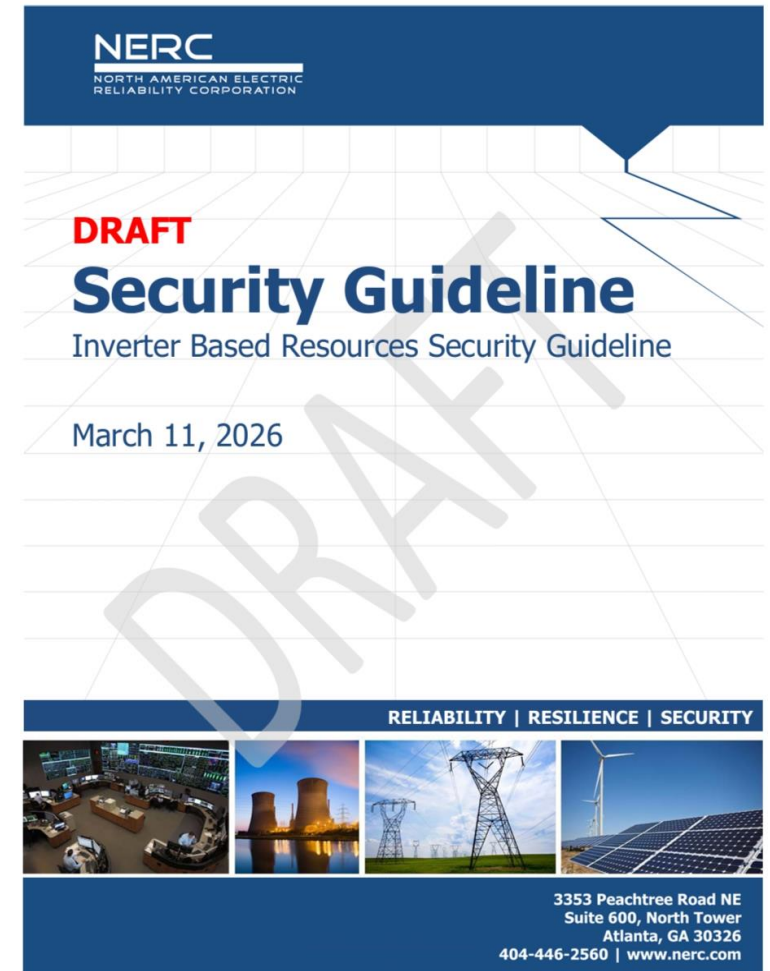
NERC's stakeholder Security Integration and Technology Enablement Subcommittee (SITES) developed this advisory security guideline to provide practical, risk-informed cybersecurity recommendations tailored to the operational realities of utility-scale IBR environments.

Drivers

- Utility-scale IBRs increasingly crucial to the Bulk Power System with cyber characteristics that differ from traditional “big iron” assets
- Aggregate risk potential from prevalent remote access usage and shared architectures
- Security happens late in IBR lifecycle due to turn-key implementations dominating
- Most IBR facilities fall outside current NERC Critical Infrastructure Protection applicability; practical guidance fills a gap

Guideline Coverage

- Governance, asset management, and configuration control
- Supply chain and third-party dependency management
- Identity and access management
- Remote access and network connectivity governance
- Network architecture and segmentation practices
- Secure communications and telemetry protection
- Incident response and recovery preparedness



Questions?