

FERC Order No. 901 Summary of Milestone 3

NERC Standards Development Update

July 2025

Overview

As identified in NERC's assessments and recommendations, additional model types must be used for local reliability studies, during the interconnection process and following commissioning to validate as-built performance, as well as through ongoing validation of performance for assuring quality models. The deficiencies within the current state of model quality are well documented and comprise the scope of issues to be addressed in this Milestone. To facilitate the development of this Milestone, Standard Authorization Requests were assigned to active projects that already had some aspects of Order No. 901-directed modeling improvements and drafting team familiarity with the Reliability Standards to be changed.

All Milestone 3 projects must be filed with FERC by November 4, 2025, with full implementation by January 1, 2030, to comply with Order No. 901.

Milestone 3 Key Messages

- NERC's assessments have found that additional model types must be used for local reliability studies during the interconnection process, following commissioning to validate as-built performance and through ongoing validation of performance for assuring quality models.
- Milestone 3 projects address the scope of issues related to the current state of model quality.
- Industry is encouraged to engage during the comment periods to ensure a timely filing.
- Not all projects address Order No. 901 directives directly but must be included in Milestone 3 as a single solution to ensure a consistent approach to how modeling validation and data sharing is conducted.
- The drafting teams will continue to collaborate and provide summary updates as those are available.

Milestone 3 Status

- The drafting teams are working through industry comments to provide additional drafts of standards during the remainder of this year.
- Milestone 3 workshops were conducted in January and June 2025. Workshop presentations and recordings from the June workshop can be found on the [Reliability Standards Under Development](#) page.

Milestone 3 Projects

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

Standards Include: MOD-026, MOD-027

Standards Developer: [Josh Blume](#)

This project addresses the verification and validation of models for registered inverter-based resources (IBR), unregistered and aggregated IBR, and aggregated distributed energy resources.

This project defined terms (such as model verification and model validation), developed a process for post-interconnection model validation based on performance data, and set validation expectations using performance data.

Project 2021-01 – System Model Validation with IBRs

Standards Include: MOD-033

Standards Developer: [Jason Snider](#)

This project addresses system-level model verification and validation against actual behavior during disturbances, as well as aligning steady state and dynamic representation, where appropriate.

Additional focus will be to develop criteria for performing validation, determine minimum study conditions for conducting validation studies, and develop a process to communicate system interconnection-wide model defects to Transmission Planners and other associated entities.

Project 2022-02 – Uniform Modeling Framework for IBR

Standards Include: MOD-032, TOP-003, IRO-010

Standards Developer: [Jordan Mallory](#)

This project addresses developing a NERC-maintained model library for IBR. The library will consist of generic IBR model types.

Additional focus will be to establish a uniform framework for data sharing and model development. Other standards will utilize performance data and the library using this framework.