Summary of Proposed Reliability Standard: MOD-026-2

Proposed Reliability Standard MOD-026-2 – Verification of Dynamic Models and Data for BES Connected Facilities

Details of Standard(s) Development

Reliability Standards Authority:	NERC
Standard(s)	• MOD-026-2 – Verification of Dynamic Models and Data for BES Connected Facilities
Purpose	To verify that the dynamic models and associated parameters used to assess Bulk Electric System (BES) reliability represent the in-service equipment of BES Facilities including generating Facilities, transmission connected dynamic reactive resources, and high-voltage direct current (HVDC) terminal equipment.
Change Type:	FERC DIRECTIVE
Affected Functional Entities:	• Generator Owner (GO) • Transmission Planner (TP) • Planning Coordinators (PC) • Transmission Owner (TO)
Ballot Results:	MOD-026-2: 88.69% Quorum / 83.3% Approval
Ontario Participant Support on last ballot:	There were 243 votes cast by NERC registered entities. 2 OEB rate-regulated entities voted (2/ 243) Affirmative.
Impact Within Ontario	Not Assessed.

Standards Development Milestones[1]

Date	Action
October 31, 2025	• Adopted by NERC Board of Trustees
November 4, 2025	• NERC Petition for Approval
November 11, 2025	• IESO Posting Date
March 11, 2026	• End of OEB Review Period

Summary

Models are the foundation of power system studies that ensure Bulk-Power System (BPS) reliability. Accurate models are critical—optimistic models risk outages and under-investment, while pessimistic ones lead to inefficient operations. Models and their data must be complete, accurate, and periodically validated. The BPS resource mix has shifted from large synchronous generators to inverter-based resources (IBRs) and distributed energy resources (DERs), which require precise modeling. NERC and the Commission have identified deficiencies in current practices, and recent events highlight reliability risks from unexpected IBR behavior. Understanding the scope of IBRs and DERs is essential for planning and operations.

To address these risks, FERC Order No. 901 (2023) directed NERC to develop comprehensive standards for IBR performance, operations, and planning. MOD-026-2 fulfills this directive by strengthening model validation and verification processes to ensure positive sequence dynamic and electromagnetic transient (EMT) models accurately reflect in-service equipment. It establishes a periodic process to compare models against actual facility behavior, reducing discrepancies and improving reliability. MOD-026-2 ensures registered IBR models meet Transmission Planner and Planning Coordinator requirements for use in planning and operational studies.

Other Salient Information

Stakeholder Consultation

NERC Reliability Standards Development Procedure

- NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC Standard Processes Manual;
- NERC's rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards;
- The development process is open to any person or entity with a legitimate interest in the reliability of the Bulk Power System. NERC considers the comments of all stakeholders;

[1] The next steps will be the issuance of the FERC Order followed by determination of the Ontario Enforcement Date.

- Stakeholders must approve, and the NERC Board of Trustees must adopt, a new or revised Reliability Standard before NERC submits the Reliability Standard to FERC for approval;

Project Initiation:	September 24, 2020 (SAR accepted); Work Plan filed January 17, 2024
Standards Committee Authorizes Procedural Waiver:	April 16, 2025
First Posting – Comment Period, Initial Ballot (Definitions):	April 17, 2025 – May 12, 2025
First Posting – MOD-026-2 Draft:	May 22, 2025 – June 18, 2025
Second Posting – Comment Period, Additional Ballot:	August 14, 2025 – September 10, 2025
Third Posting – Comment Period, Additional Ballot:	September 29, 2025 – October 10, 2025
Final Ballot – MOD-026-2:	October 20, 2025 – October 24, 2025
Board of Trustees Adoption:	August 14, 2025 (Definitions for Model Verification and Model Validation); October 31, 2025 (MOD-026-2)

IESO Reliability Standards Standing Committee

- The purpose of the Reliability Standards Standing Committee (RSSC) is to assist market participants to develop a more comprehensive understanding of their reliability obligations by:
  - Notifying participants of reliability-related information on new and developing reliability standards;
  - Providing a forum to discuss and develop consensus comments on new and developing reliability standards; and
  - Engaging participants in the standard development process of NERC and NPCC.
- The majority of stakeholder engagement takes place by email communications and is open to any stakeholder wishing to join
- The IESO presented the proposed changes at the following RSSC meetings:
  - December 11, 2024
  - March 19, 2025
  - June 4, 2025