

Implementation Plan

Project 2020-06 Verifications of Models and Data for Generators Reliability Standard MOD-026-2

Applicable Standard(s)

- MOD-026-2 Verification of Dynamic Models and Data for BES Connected Facilities

Requested Retirement(s)

- MOD-026-1 Verification of Models and Data for Generator Excitation Control System or Plant Volt/Var Control Functions
- MOD-027-1 Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions

Prerequisite Standard(s)

These standard(s) or definitions must be approved before the Applicable Standard becomes effective:

- None

Applicable Entities

- Generator Owner
- Transmission Owner
- Transmission Planner
- Planning ~~Authority~~Coordinator

New/Modified/Retired Terms in the NERC Glossary of Terms

None

Background

Reliability Standard MOD-026-2 will replace MOD-026-1 and MOD-027-1. MOD-026-2 includes requirements for verifying dynamic models, which are used in planning studies to ensure BES reliability. The new version of MOD-026-2 adds a requirement for Applicable Entities to provide verified electromagnetic transient (EMT) models and adds clarifications for inverter based resource Facilities.

General Considerations

The intent of the Initial Performance of Periodic Requirements section is for ~~Applicable Entities~~applicable entities to remain on the same time interval of the prior versions of the standards for their performance of the requirements under the new versions. For ~~Applicable Entities~~applicable entities whose next periodic performance under MOD-026-2 Requirements R2–R5 would be due on the Effective Date or shortly thereafter, this implementation plan provides additional time to comply with the new Requirement(s). The standard drafting team chose to use a phased-in implementation period for some Requirements considering the revisions made within the standard.

This implementation plan reflects the consideration of the following factors:

- MOD-026-1 and MOD-027-1 utilized a 10 year implementation period
- New ~~Applicable Entities~~applicable entities (Transmission Owner and Planning Authority ~~Coordinator~~)
- New ~~Applicable~~applicable Facilities (lower MVA threshold for generation Facilities, FACTS devices, and HVDC equipment)
- New Requirement for verified EMT models
- Additional model verification documentation requirements
- Maintain similar 10-year periodic interval between model verification activities for Applicable Entities and vendors providing those services
- Limited amount of subject matter experts in industry, equipment manufacturers, and vendors that are able to implement the requirements in this standard

Effective Date and Phased-In Compliance Dates

The effective date(s) for the proposed Reliability Standard are provided below. Where the standard drafting team identified the need for a longer implementation period for compliance with a particular section of a proposed Reliability Standard (i.e., an entire requirement or a portion thereof), the additional time for compliance with that section is specified below. The phased-in compliance date for those particular sections represents the date that entities must begin to comply with that particular section of the Reliability Standard, even when the Reliability Standard goes into effect at an earlier date.

Reliability Standard MOD-026-2

Where approval by an applicable governmental authority is required, the standard shall become effective on the first day of the first calendar quarter that is ~~twelve~~twenty-four (~~12~~24) months after the effective date of the applicable governmental authority's order approving the standard, or as otherwise provided for by the applicable governmental authority.

Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is ~~twelve~~**twenty-four** (~~12~~**24**) months after the date the standard is adopted by the NERC Board of Trustees, or as otherwise provided for in that jurisdiction.

Compliance Date for MOD-026-2 – Requirements R2, R3, R4, R5, ~~and R6,~~ and R7.

Applicable ~~Entities~~**entities** shall not be required to comply with Requirement R2, R3, R4, R5, ~~and R6,~~ **and R7** until thirty-six (36) months after the effective date of Reliability Standard MOD-026-2.

For an applicable entity previously compliant with MOD-026-1 Requirement R2 or MOD-027-1 Requirement R2, see the Initial Performance of Periodic Requirements section below.

Retirement Date

MOD-026-1 and MOD-027-1

Reliability Standard MOD-026-1 shall be retired immediately prior to the effective date of MOD-026-2 in the particular jurisdiction in which the revised standard is becoming effective.

Reliability Standard MOD-027-1 shall be retired immediately prior to the effective date of MOD-026-2 in the particular jurisdiction in which the revised standard is becoming effective.

Initial Performance of Periodic Requirements

Applicable ~~Entities~~**entities** shall initially comply with the periodic requirements (Requirements R2, R3, R4, and R5) ~~in~~**of** MOD-026-2 within ~~the~~**10 calendar years of the most recent transmittal, based upon the** periodic timeframes of their last performance under the respective requirement in the Requested Retired Standards (MOD-026-1 R2 or MOD-027-1 R2). Applicable ~~Entities~~**entities** shall initially comply with MOD-026-2 Requirement R6 by the periodic timeframe associated with the performance of MOD-026-2 Requirement R4 or performance of MOD-026-2 Requirement R5, whichever is sooner. When the periodic timeframe falls between the effective date of MOD-026-2 and the Compliance Date for the respective requirement, the ~~Applicable Entity~~**applicable entity** shall comply with the Requirement(s) of MOD-026-2 by the Compliance Date.

For applicable ~~units~~**Facility** commissioned after the Effective Date of MOD-026-2, ~~Applicable Entities~~**applicable entities** shall comply with ~~the~~**the** periodic requirements of MOD-026-2 by the later of: (i) the Compliance Date for the respective Requirement; or (ii) 365 calendar days after the commissioning date in accordance with MOD-026-2 Attachment 1.

If a Generator Owner or Transmission Owner submits a verified model under MOD-026-2 Requirements R2-R6 prior to the effective date of MOD-026-2 (i.e. early compliance with Requirements R2-R6), the Transmission Planner will not be obligated to review the EMT model until the later of: (i) the effective date of MOD-026-2; or (ii) 120 days after receiving the submitted model.

