

Implementation Plan

Project 2021-04

Reliability Standards PRC-002-5 and PRC-028-1

Applicable Standard(s)

- PRC-002-5 Disturbance Monitoring and Reporting Requirements
- PRC-028-1 Disturbance Monitoring and Reporting Requirements for Inverter-Based Resources

Requested Retirement(s)

- PRC-002-4 – Disturbance Monitoring and Reporting Requirements

Applicable Entities

- Reliability Coordinator
- Transmission Owner (TO)
- Generator Owner (GO)

General Considerations

Additional time to implement Reliability Standard PRC-002-5 is not provided because the revisions are clarifying in nature to exclude Inverter-Based Resources (or “IBRs”) from PRC-002 applicability as they are included in PRC-028. The revision to PRC-002 does not require any additional procurement or installation of Disturbance Monitoring Equipment.

Reliability Standard PRC-028-1 is expected to have wide ranging impact on GOs, as many existing and new facilities would be required to have Disturbance Monitoring Equipment. A graduated approach to implementation recognizes that progress will be made while attempting to minimize any potential significant impact to the entities. The implementation plan takes into account scheduling outages needed to implement sequence of events recording, fault recording, and dynamic disturbance recording capability. The implementation plan accounts for any increase in requests to vendors for this technology or capability that could impact implementation timelines for the respective entities.

The ERO enterprise acknowledges that Generator Owners and Generator Operators owning or operating Bulk-Power System connected IBRs that do not meet NERC’s current definition of Bulk Electric System (“BES”) will be registered no later than May 2026 in accordance with the IBR Registration proceeding in FERC Docket No. RR24-2. To ensure an orderly registration and compliance process for these entities, as well as fairness and consistency in the standard’s application among similar asset types, this implementation plan provides additional time for both new and existing registered entities to come into compliance with Reliability Standard PRC-028-1 for their applicable Inverter-Based Resources not meeting BES definition. In so doing, this

implementation plan advances an orderly process for new registrants while allowing existing entities to focus their immediate efforts on their assets posing the highest risk to the reliable operation of the Bulk-Power System.

The implementation plan recognizes the Federal Energy Regulatory Commission’s directive to have this standard effective and enforceable before 2030.¹

Effective Date of PRC-002-5

Where approval by an Applicable Governmental Authority is required, Reliability Standard PRC-002-5 shall become effective on the first day of the first calendar quarter 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, Reliability Standard PRC-002-5 shall become effective the first day of the first calendar quarter after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

Effective Date of PRC-028-1 and Phased-in Compliance Dates

The effective date for proposed Reliability Standard PRC-028-1 is 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 where the Reliability Standard goes into effect at an earlier date.

Reliability Standard PRC-028-1

Where approval by an Applicable Governmental Authority is required, Reliability Standard PRC-028-1 shall become effective on the first day of the first calendar quarter 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, Reliability Standard PRC-028-1 shall become effective on the first day of the first calendar quarter after the date the standard is adopted by the NERC Board of Trustees or as otherwise provided for in that jurisdiction.

BES Inverter-Based Resources

Compliance Date for PRC-028-1 Requirements R1-R7

¹ See Order No. 901 at P226.

For BES Inverter-Based Resources in commercial operation² on or before the effective date: Entities shall comply with Requirements R1 through R7 at 50% of their BES Inverter-Based Resources within three (3) calendar years of the effective date of PRC-028-1 and 100% of their BES Inverter-Based Resources by January 1, 2030.

Entities that are required to monitor only one (1) BES Inverter-Based Resource shall comply with Requirements R1 through R7 within three (3) calendar years of the effective date of Reliability Standard PRC-028-1.

For BES Inverter-Based Resources entering commercial operation after the effective date: Entities shall comply with Requirements R1 through R7 within 15 calendar months following the effective date of the standard or the commercial operation date, whichever is later. As an example: Assume the effective date of the PRC-028-1 is July 1, 2025:

- For BES IBRs entering commercial operation after July 1, 2025, but on or before October 1, 2026, entities shall comply with Requirements R1 through R7 by October 1, 2026.
- For BES IBRs entering commercial operation after October 1, 2026, entities shall comply with Requirements R1 through R7 on the commercial operation date.

Compliance Date for PRC-028-1 Requirement R8

Entities shall comply with Requirement R8 by no later than nine (9) months after the effective date of Reliability Standard PRC-028-1.

Non-BES Inverter-Based Resources

The “Non-BES Inverter-Based Resources” are those that either have or contribute to an aggregate nameplate capacity of greater than or equal to 20 MVA, connected through a system designed primarily for delivering such capacity to a common point of connection at a voltage greater than or equal to 60 kV.

Compliance Date for PRC-028-1 Requirements R1-R7

For non-BES Inverter-Based Resources in commercial operation on or before May 15, 2026: Entities shall comply with Requirements R1 through R7 at 100% of their non-BES Inverter-Based Resources by January 1, 2030.

For non-BES Inverter-Based Resources in commercial operation after May 15, 2026:

² Commercial operation means achievement of this designation indicating that the facility has received all approvals necessary for operation after completion of initial start-up testing.

Entities shall comply with Requirements R1 through R7 within 15 calendar months following the effective date of the standard or the commercial operation date, whichever is later.

Compliance Date for PRC-028-1 Requirement R8

Entities shall comply with Requirement R8 by no later than April 1, 2027.

Process for Requesting an Extension from Compliance Dates

Each GO that owns one or more applicable Inverter-Based Resources that are in commercial operation before the effective date of Reliability Standard PRC-028-1 may request an extension from the above-listed compliance dates if circumstances beyond its control prevent the installation of Disturbance Monitoring Equipment on one or more of its Inverter-Based Resources.

To request an extension, the entity shall develop and submit to its Compliance Enforcement Authority³ a request for extension that contains at a minimum the following information:

- 1.1.** Identification of the Inverter-Based Resource(s) for which the entity requests the extension;
- 1.2.** A plan for installing the Disturbance Monitoring Equipment and a timetable for completion;
- 1.3.** A description of the circumstances precluding the timely installation of Disturbance Monitoring Equipment and how those circumstances are beyond the control of the entity; and
- 1.4.** Any other information the entity deems relevant to the Compliance Enforcement Authority's consideration of its request.

Circumstances beyond the entity's control may include supply chain delays associated with the procurement, engineering, installation, or commissioning of disturbance monitoring equipment, inability to secure scheduled outages, or other exceptional circumstances outside the entity's control.

The entity shall provide any information requested by the Compliance Enforcement Authority to validate the information provided above, including any information specified by the Compliance Enforcement Authority in a supporting process document. If the extension request is granted, the entity shall implement the plan in accordance with the provided timetable. Should additional time be required, the entity shall submit an updated request to its Compliance Enforcement Authority.

Requests should be submitted as soon as the entity identifies circumstances impeding the timely implementation of Reliability Standard PRC-028-1, but no later than three months prior to the compliance date for which the entity requests an extension.

³ The extension requests for a non-US Registered Entity should be implemented in a manner that is consistent with, or under the direction of, the applicable governmental authority or its agency in the non-US jurisdiction.

Retirement Date

Reliability Standard PRC-002-4 shall be retired immediately prior to the effective date of Reliability Standard PRC-002-5 in the particular jurisdiction in which the revised standard is becoming effective.