

Summary of Proposed Reliability Standards: PRC-028-1 and PRC-002-5

Proposed Reliability Standards PRC-028-1 and PRC-002-5 establishing Disturbance Monitoring requirements for Inverter-based Resources (IBR).

Details of Standard(s) Development

Reliability Standards Authority: NERC

Standard(s)	<ul style="list-style-type: none">• PRC-028-1 – Disturbance Monitoring and Reporting Requirements for Inverter-Based Resources• PRC-002-5 – Disturbance Monitoring and Reporting Requirements
Purpose	To have adequate data available from Inverter-Based Resources to facilitate analysis of Bulk Electric System Disturbances.
Change Type:	FERC DIRECTIVE
Affected Functional Entities:	<ul style="list-style-type: none">• Reliability Coordinator (RC)• Generator Owner (GO)• Transmission Owner (TO)
Ballot Results:	<ul style="list-style-type: none">• PRC-028-1 88.52% Quorum / 83.85% Approval• PRC-002-5 83.21% Quorum / 84.20% Approval
Ontario Participant Support:	<ul style="list-style-type: none">• PRC-002-5: There were 228 votes cast by NERC registered entities. 2 OEB rate-regulated entities voted (2/228). Both were Affirmative.• PRC-028-1: There were 239 votes cast by NERC registered entities. 3 OEB rate-regulated entities voted (3/239). Two were Affirmative and one was Abstain.

Standard Development Milestones

Date	Action
October 08, 2024	<ul style="list-style-type: none"> Adopted by NERC Board of Trustees
November 04, 2024	<ul style="list-style-type: none"> NERC Petition for Approval
November 12, 2024	<ul style="list-style-type: none"> IESO Posting Date
March 11, 2025	<ul style="list-style-type: none"> End of OEB Review Period
TBD	<ul style="list-style-type: none"> FERC Order Issued
TBD	<ul style="list-style-type: none"> US Mandatory Enforcement Date
TBD	<ul style="list-style-type: none"> Ontario Enforcement Date (Milestones in Reliability Standard Development and Lifecycle)

Summary

The PRC-002 standard was originally written with a focus on synchronous resources. This focus was appropriate, as it reflected the resource mix at the time. The Bulk-Power System, however, has undergone a rapid transformation in recent years, with IBRs making up a higher and growing portion of the resource mix. Recent NERC experience analyzing disturbances involving IBRs, including the Blue Cut Fire and Canyon 2 Fire events, demonstrated that the PRC-002 standard was not providing sufficient data to analyze those disturbances, and that NERC needed to address this reliability gap. FERC Order No. 901, issued in 2023, further highlighted the need for a comprehensive set of Reliability Standard requirements addressing all manner of issues related to IBR performance, operations, and planning, including disturbance monitoring.

Proposed Reliability Standard PRC-028-1 would address the identified reliability gap in PRC-002 by extending comprehensive disturbance monitoring and reporting requirements to IBRs. These requirements are informed by, and reflective of, the unique characteristics of IBRs. Proposed Reliability Standard PRC-028-1 would also ensure sufficient data is available from IBRs to evaluate IBR ride-through performance during system disturbances and to provide data for model validation. Such data may be used as part of future standards work addressing IBR model 5 quality issues and IBR operations and planning studies. Proposed Reliability Standard PRC-002-5 would exclude IBRs from its scope to clarify that standard's continued applicability to synchronous resources. Together, these proposed Reliability Standards would enhance the reliability of the Bulk-Power System by ensuring that adequate data from both synchronous generating resources and IBRs is available to facilitate the analysis of system disturbances.

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;
- 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;
- NERC provided public notices for comments and balloting as follows:
 - Standard Authorization Request approval:
January 19, 2022
 - First Posting:
August 1 – September 14, 2023,
 - Waivers of Standard Processes Manual minimum posting length requirements:
December 13, 2023
 - Second Posting:
March 18 – April 11, 2024
 - Third Posting:
May 31 – June 17, 2024
 - Forth Posting
July 22 – August 12, 2024
 - Final Ballot
September 12 – 18, 2024

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:
 - August 25, 2022
 - December 12, 2022
 - September 14, 2023
 - March 14, 2023
 - June 13, 2024
 - September 12, 2024