

## Reliability Compliance Update

Gizella Mali April 2024 NERC Compliance

www.pjm.com | Public PJM©2024



STANDARD: PRC-030-1

# Project 2023-02 Analysis and Mitigation of BES Inverter-Based Resource Performance Issues

PROJECT BACKGROUND:	Action	End Date
Background	Join Ballot Pools	04/03/24
This project addresses the reliability-related need and benefit by requiring analysis and mitigation of unexpected or unwarranted protection and control operations from inverter-based resources following the identification of such a performance issue. This includes any types of protections or controls that result in abnormal performance issues within the plant, including abnormal performance resulting in anomalous behavior of active power output from the facility during events.	Comments & Balloting	04/18/24
Comment Form		



STANDARD: GLOSSARY TERMS

#### **Project 2020-06** Verifications of Models and Data for Generators

PROJECT BACKGROUND:	Action	End Date
Inverter-Based Resource (IBR): A plant/facility that is connected to the electric system, consisting of one or more IBR Unit(s) operated as a single resource at a common point of interconnection. IBRs include, but are not limited to, solar photovoltaic (PV), Type 3 and Type 4 wind, battery energy storage system (BESS), and fuel cell.  Inverter-Based Resource Unit (IBR Unit): An individual device that uses a power electronic interface, such as an inverter or converter, capable of exporting Real Power from a primary energy source or energy storage system, and that connects at a single point on the collector system; or a grouping of multiple devices that uses a power electronic interface(s), such as an inverter or converter, capable of exporting Real Power from a primary energy source or energy storage system, and that connect together at a single point on the collector system.  Comment Form	Comments & Balloting	04/08/24



STANDARDS:

PRC-002-5 PRC-028-1

#### **Project 2021-04** Modifications to PRC-002 – Phase II

PROJECT BACKGROUND:	Action	End Date
This Project is focused on the changing resource mix and increasing penetration of Inverter-Based Resources (IBRs), which the current version of PRC-002 does not serve its intended purpose adequately; and the location requirements and associated periodic assessments need to be revised. As a result, a new Standard: PRC-028-1 Disturbance Monitoring and Reporting Requirements for Inverter-Based Resources has been drafted and is included in the commenting and balloting.  Comment Form	Comments & Balloting	04/11/24



STANDARD: TPL-008-1

# **Project 2023-07** Transmission System Planning Performance Requirements for Extreme Weather

PROJECT BACKGROUND:	Action	End Date
<b>Background</b> FERC directed NERC (Order No. 896) to develop modifications to Reliability Standard TPL-001-5.1 or a new Reliability Standard, to require the following:	Join Ballot Pools	04/18/24
<ol> <li>development of benchmark planning cases based on major prior extreme heat and cold weather events and/or meteorological projections;</li> <li>planning for extreme heat and cold weather events using steady state and transient stability analyses expanded to cover a range of extreme weather scenarios including the expected resource mix's availability during extreme heat and cold weather conditions, and including the wide-area impacts of extreme heat and cold weather; and</li> <li>development of corrective action plans that mitigate any instances where performance requirements for extreme heat and cold weather events are not met.</li> </ol>	Comments & Balloting	05/03/24
Comment Form		



Industry Webinar – Project 2023-07 Transmission Planning Performance Requirements for Extreme Weather (TPL-008-1)

- > April 12, 2024 | 1:00 2:30 p.m. Eastern
  - Join Webex



STANDARDS:

FAC-001-4 FAC-002-4 Reliability and Security Technical Committee (RSTC) proposed Standard Authorization Request (SAR): Revisions to FAC-001-4 and FAC-002-4

PROJECT BACKGROUND:	Action	End Date
The Inverter-Based Resource Performance Subcommittee (IRPS) has created a draft Standard Authorization Request (SAR) for revisions to FAC-001 and FAC-002. The goal of this SAR is to improve FAC-001 and FAC-002 and help ensure that Transmission Operators (TOPs), Reliability Coordinators (RCs), and Balancing Authorities (BAs) can work with the relevant Generator Owner (GO) to address any abnormal performance issues. This includes seeking corrective actions, requesting improvements to the requirements developed by the TO, TP, or PC (Per FAC-001 or FAC-002), and reporting any abnormal performance to NERC for continued risk assessment.	Comments Period	3/18/24-4/17/24
<u>Draft SAR: Revisions to FAC-001-4 and FAC-002-4</u> <u>Draft SAR: Revisions to FAC-001-4 and FAC-002-4 - Comment Matrix</u>		



STANDARDS:

PRC-024-4 PRC-029-1

**Project 2020-02** Modifications to PRC-024 (Generator Ride-through)

PROJECT BACKGROUND:	Action	End Date
Expedited process: FERC Order 901 requires that IBR-related performance requirements for ride-through are completed and filed with FERC by November 4, 2024. The drafting team will address the IBR-related PRC-029 first and modify PRC-024 to only apply towards synchronous machines. Following the approval of PRC-029, the drafting team will consider additional modifications to PRC-024 to assure performance-based requirements for synchronous machines are adequately addressed.	Join Ballot Pools  Comments & Balloting	04/05/24 03/27/24-04/22/24
Comment		



STANDARD: TOP-001, TOP-002, TOP-003, TOP-010

Reliability and Security Technical Committee (RSTC) proposed Standard Authorization Request (SAR): Clarity of DER in OPA and RTA Definitions

PROJECT BACKGROUND:	Action	End Date
Adding clarity to the terms and language composing the NERC Glossary of Terms for the Operational Planning Analysis (OPA) and Real-time Assessment (RTA). Assessments of OPAs and RTAs must at a minimum include inputs of "load", "load forecast", and "generation output levels". Ensuring the accurate representation of DER capacity and bulk-system bus are explicit when performing an OPA or RTA.	Comments Period	3/25/24-4/24/24
Draft SAR: Clarifications to Operational Planning Analysis (OPA) and Real-time  Assessment (RTA)  Draft SAR: Clarifications to Operational Planning Analysis (OPA) and Real-time  Assessment (RTA) - Comment Matrix		



### 2024 Total Solar Eclipse Grid Impact Study

- > April 2, 2024 | 1:00 p.m. Eastern
  - Zoom Registration

# 2024 NERC-NATF-EPRI Extreme Weather Transmission Planning and Modeling Workshop

- > Implications of FERC Order No. 896
  - ➤ May 29, 2024 to May 30, 2024
    - ➤ Dallas, TX <u>Details / Registration</u>



### Reliability First (RF)

Technical Talks with RF

➤ April 15, 2024

➤ May 20, 2024

➤ June 17, 2024

2:00 p.m. – 3:30 p.m.

2:00 p.m. – 3:30 p.m.

2:00 p.m. – 3:30 p.m.

- Virtual 10th Annual Protection System Workshop for Technical Personnel – <u>Register</u>
  - ➤ August 7, 2023 | 9:00 a.m. 1:00 p.m. Eastern
- ➤ Virtual 7th Annual Human Performance Workshop Register
  - ➤ August 8, 2023 | 9:00 a.m. 1:00 p.m. Eastern



SME/Presenter: Gizella Mali

Gizella.Mali@pjm.com

Elizabeth.Davis@pjm.com

Regional\_compliance@pjm.com



#### Member Hotline

(610) 666 - 8980

(866) 400 - 8980

custsvc@pjm.com

