

# INVERTER-BASED RESOURCES

## REGISTRATION INITIATIVE

The Inverter-Based Resource (IBR) Registration Initiative is closing a critical reliability gap by targeting unregistered IBRs connected to the bulk power system (BPS). These unregistered resources materially affect the BPS but are not subject to NERC Reliability Standards.

In response to FERC’s [directive](#), NERC is tackling the reliability risks of inverter-based technology head-on. NERC’s comprehensive [work plan](#) includes changing the NERC [Rules of Procedure](#) (ROP) to ensure IBRs that affect the bulk electric system (BES) are registered. On May 18, 2023, FERC accepted NERC’s work plan. The changes to Appendix 5B in the ROP introduce a new category—“Category 2” Generator Owners (GO) and Generator Operators (GOP)—entities that:

- Own or operate non-BES inverter-based generating resources with an aggregate nameplate capacity of 20 MVA or more.
- Are connected through a system designed to deliver capacity to a common point at a voltage of 60 kV or higher.

FERC [approved](#) these modifications on June 27, 2024. By May 2025, WECC and other Regional Entities will identify and notify Category 2 GOs and GOPs about the NERC registration process, compliance obligations, and next steps. The most common types of inverter-based generating resources in the WECC footprint are solar, Type 3 and Type 4 wind power plants, and battery energy storage systems. These entities are expected to register by May 2026.

This initiative ensures reliability and accountability as we become a more resilient and modern power system.

*IBRs can provide essential reliability services to the BPS, but the rapid growth of IBRs presents significant risks to reliability if these resources are not integrated properly.*

### WECC IBR Resources

[State of the Interconnection—IBRs](#)

[Reliability in the West: Inverter-Based Resources and Ride-Through](#)

[Reliability in the West: Inverter-based Resources –Grid-Forming Technology](#)

[WECC Study Program: Grid-Forming Inverters](#)

[CAISO New Resource Implementation Stakeholder Meeting, May 2024](#)

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### NERC IBR RESOURCES

[Quick Reference Guide: IBR Registration Initiative](#)

[IBR Registration Initiative 101](#)

[Ensuring Grid Reliability—the Inverter-Based Resources Registration Initiative](#)

[Application of the Registration Criteria for Category 2 Generator Owner and Generator Operator Inverter-Based Resources](#)

[Information to be Considered by CMEP Staff Regarding Inverter-Based Resources](#)

## LATEST UPDATES



### Registration

- The ERO Enterprise hosted an IBR Registration Initiative webinar for new registrants on November 13, 2024. The webinar recording is available [here](#), and the presentation slides are posted [here](#).
- The Regional Entities, as part of a broader ERO Enterprise Initiative, are identifying assets that meet the new Category 2 Generator Owner (GO) or Generator Operator (GOP) registration criteria. WECC began dispatching its Request for Information in batches starting January 24, 2025. Recipients must submit the requested information within 45 days via WECC’s [Secure Workspace](#). For any questions about this RFI or the IBR Registration Initiative, please contact [registration@wecc.org](mailto:registration@wecc.org).
- On March 5, 2025, the ERO Enterprise hosted an informational webinar on the CMEP Practice Guide: Application of the Registration Criteria for Category 2 Generator Owner and Generator Operator Inverter-Based Resources [Slide Presentation](#) | [Recording](#)).

### Standards

- NERC published the [IBR Registration Initiative Reliability Standards Compliance Dates for Generator Owners & Generator Operators](#) on March 18, 2025. The guide provides finalized and pending Reliability Standard compliance dates applicable to Category 2 registration. This document will be updated quarterly.
- NERC continues to develop new and modified Reliability Standards related to the IBR Registration Initiative as well as FERC Order No 901. NERC staff maintains an up-to-date project list on the [Standards Under Development page](#), which includes indicators for projects that are associated with IBR, Distributed Energy Resources (DER), and Order 901.
- NERC’s Order No. 901 work includes three standards projects, each of which had their own pre-existing scope of work. NERC recommended assignment of the Milestone 3 Standard Authorization Requests to these existing teams, with the relevant subject matter expertise, and standards already under revisions, to allow for a more expedited process. Each drafting team will develop Implementation Plans similar to those produced for Milestone 2 projects, specifically accounting for non-BES IBR (Category 2 generation). Industry is encouraged to continue to follow how these projects will address IBRs and these new registrations.

### Upcoming Stakeholder Outreach and E-ISAC Engagements

- NERC will hold a workshop from June 3-5, 2025 that will focus on discussing industry comments regarding the following projects:
  - Project 2020-06 – Verifications of Models and Data for Generators
  - Project 2021-01 – System Model Validation with Inverter-Based Resources (IBRs)
  - Project 2022-02 – Uniform Modeling Framework for IBRs
- The primary objective of the workshop will be to explore the key commonalities identified in the industry comments received during the balloting period, as well as questions raised during outreach leading up to the workshop. Attendance is available in person or virtually ([In-person Registration](#) | [Webinar Registration](#)).

### Legal

- On August 26, 2024, NERC submitted a [compliance filing](#) in response to the order issued by FERC on June 27, 2024, approving revisions to the NERC Rules of Procedure. As directed by FERC, the compliance filing clarified the types of IBRs included in the term “generating resources.”
- On May 6, 2025, NERC filed a [work plan progress update](#) with FERC.

