

Inverter-Based Resources (IBR) Registration Initiative—101



About NERC and the E-ISAC

Vision and Mission

The vision for the Electric Reliability Organization (ERO) Enterprise, comprised of NERC and six Regional Entities, is a highly reliable and secure North American bulk power system (BPS). Our mission is to assure the effective and efficient reduction of risks to the reliability and security of the grid. NERC's Electricity Information Sharing and Analysis Center (E-ISAC) reduces cyber and physical security risk to the North American electricity industry through information sharing, curated analysis, and security expertise and offers membership to North American electricity, natural gas, and renewable industry asset owners and operators.

ERO Designation

In the United States, Congress created an ERO through the Energy Policy Act of 2005. On July 20, 2006, the Federal Energy Regulatory Commission (FERC) certified NERC as the designated ERO and charged it with developing and enforcing mandatory Reliability Standards, assessing current and future reliability trends, analyzing system events, and recommending improved practices. NERC is subject to FERC oversight in the United States and that of governmental authorities in Canada. NERC Reliability Standards are mandatory in most Canadian jurisdictions as well.

Program Areas

NERC develops, implements, and enforces mandatory Reliability Standards for the bulk power system in accordance with Section 215 of the Federal Power Act. The statute requires that all users, owners, and operators of the bulk power system in the United States be subject to FERC-approved NERC Reliability Standards. NERC's compliance registry includes approximately 1,600 users, owners, and operators of the bulk power system. NERC conducts its day-to-day compliance monitoring and enforcement activities through delegation agreements with the six Regional Entities. NERC is fuel and technology neutral and does not address commercial or market issues. NERC also assesses electric adequacy annually via a 10-year forecast, special and seasonal assessments; monitors the bulk power system; and educates, trains, and certifies industry personnel. The users, owners, and operators of the bulk power system within NERC's footprint account for virtually all the electricity supplied in the United States, Canada, and the Mexican state of Baja California.

**The History of the
North American
Electric Reliability
Corporation**

Helping Owners, Operators,

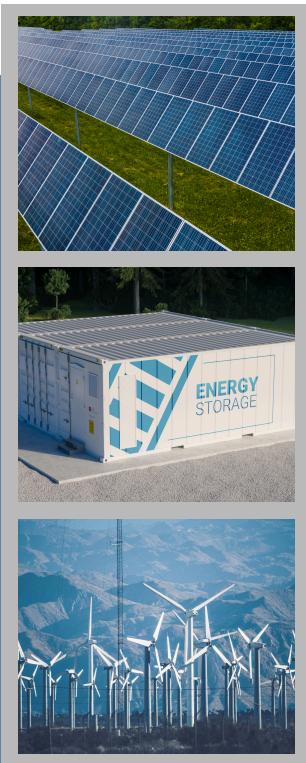
**Click here for the
history of NERC**



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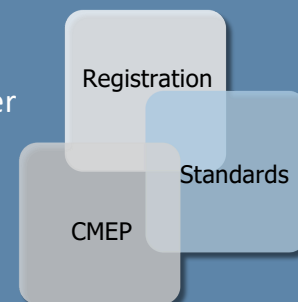


Inverter-Based Resources Registration Initiative

As part of its Inverter-Based Resources ([IBR](#)) Strategy, NERC is dedicated to identifying and addressing challenges associated with inverter-based resources as the penetration of these resources continues to increase. An ERO analysis identified a reliability gap associated with the increasing integration of IBRs on the grid with a significant level of bulk power system-connected IBR owners and operators currently not yet required to register with NERC, and, as such, not required to adhere to NERC Reliability Standards. In response, FERC issued an order directing NERC to identify and register owners and operators of currently unregistered bulk power system-connected IBRs. Working closely with industry and stakeholders, NERC is executing a FERC-approved work plan to achieve the identification and registration directive by 2026. Resources are also posted on the [Registration page](#) of the NERC [website](#).

New to NERC

NERC seeks to register Generator Owners (GO) and Generator Operators (GOP) of non-BES inverter based generating resources 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. For these new registrants, the IBR registration initiative involves three key components: Registration, Reliability Standards and Compliance Monitoring and Enforcement Process (CMEP).



REGISTRATION

Organization Registration identifies and registers bulk-power system users, owners, and operators who are responsible for performing specified reliability functions to which requirements of mandatory NERC Reliability Standards are applicable.

Once identified as a Category 2 (IBR) GO or GOP, new entities who are candidates for Registration with NERC must understand key terminology, how the Registration process works, and initial requirements for new entities. In accordance with the regional delegation agreements (RDA), the Regional Entities have been assigned the responsibility of initiating the process for registering entities functioning as owners, operators, and users of the BPS. Consequently, a [guidance document](#) was developed to help you understand and navigate the registration process.

RELIABILITY STANDARDS

NERC [Reliability Standards](#) define the reliability requirements for planning and operating the North American bulk power system and are developed using a results-based approach that focuses on performance, risk management, and entity capabilities. Below is the initial set of existing Standards for Category 2 GOs and GOPs. Additional applicable Standards (new and revised) are anticipated and will be communicated as that information becomes available.

BAL-001-TRE-2
PRC-017-1
MOD-032-1*
VAR-001-5

IRO-010-5*
TOP-003-6.1*
PRC-012-2
VAR-002-4.1*

**Indicates standards that are already part of active projects. Entities should be aware of current and pending versions of these standards.*

CMEP

[Compliance Monitoring](#) is the process used to assess, investigate, evaluate, and audit in order to measure compliance with NERC Reliability Standards. NERC and the Regional Entities understand entities registering as either or both Category 2 GO and GOP require certainty on compliance dates with applicable Reliability Standards.

NERC and the Regional Entities will communicate those dates as they are determined by process to ensure entities are clear on expectations and can leverage the full implementation period.

To ensure you are fully informed, we recommend frequently visiting the NERC IBR [Initiatives page](#).