

NERC Compliance

Electrical Engineering Services and Systems



NERC standards are evolving, let us help you stay in compliance

Protect and maintain reliability

The goal of North American Electric Reliability Corporation (NERC) is to assure the effective and efficient reduction of risks to the reliability and security of the grid. NERC develops and enforces a series of standards, including Protection and Control (PRC) Standards, Verification of Models and Data (MOD) for Generator, Exciter, Governor Standards, and Cyber Security (CIP) Standards. Eaton is experienced to provide NERC compliance studies to support utility customers to comply with the requirements.

Since the power system blackout in 2003, NERC has continued to issue new reliability standards to ensure generation assets are appropriately modeled, adequately protected and systems designed to prevent such an event from reoccurring.

The NERC standards continue to evolve with additional standards being introduced and requiring compliance. This ever-changing regulatory world can be complex for utilities and result in insufficient time to understand the standard requirements or ensure proper data collection to support the new compliance needs as each standard requires system study to prove compliance to the standard requirements. Each utility or generator owner (GO) must demonstrate this compliance by prescribed dates.

Performing system studies, our process



Our power system engineers perform over 30,000 studies each year and participate in continuous education on NERC and other industry standards. They are fully trained and qualified to perform the specialized analysis required for NERC compliance, in addition to being trained to know what is needed if compliance is not indicated.

Our process begins with evaluations including assessing previous site PRC study reports, the existing power system equipment documentation, and the protective relay setting information. We'll evaluate the available data, confirm assumptions for unknown data per standard requirements, and complete all necessary calculations and system modeling to ensure compliance per the stated standard.

Compliance reports are issued per site in compliance NERC standard requirements. In cases where compliance is not demonstrated, we will provide a detailed explanation as well as recommendations to achieve compliance.

Final reports include all calculation and modeling results, as well as further recommendations for system and protection optimization.



Powering Business Worldwide

Standards expertise

Eaton has expertise in systems studies NERC compliance:

In the absence of customer-supplied drawings, enclosure layout drawing(s), including device layout and bill of material, as well as a wiring diagram and schematics are supplied.

Standard	Title	Effective date
PRC-019-2	Coordination of Generator Unit or Plant Capabilities, Voltage Regulating Controls, and Protection	07/01/2016
PRC-024-2	Generator Frequency and Voltage Protective Relay Settings	07/1/2018
PRC-025-2	Generator Relay Loadability	01/01/2018
PRC-026-1	Relay Performance During Stable Power Swings	10/01/2014
PRC-027-1	Coordination of Protection Systems for Performance During Faults	04/01/2021

Single source provider

PRC-027-01 is the most recent standard released. In addition to the completion of NERC compliance reports, we will help you develop an understanding and knowledge about this industry standard. This knowledge sharing supports you in developing plans to ensure ongoing data collection for the compliance process. Our system knowledge and standards expertise enable us to act as a single source provider for NERC PRC Compliance.



Trust in Eaton

We offer a wide range of power system engineering services combining utility experience with state-of-the-art technologies to assist you in addressing new and emerging system problems.

Our services include power system studies for transmission, distribution, and industrial power systems. Our power system engineers are heavily involved in industry activities through conducting seminars and workshops for utilities and industrial groups worldwide. They participate in technical societies such as IEEE, CIGRÉ and International Standards Committees in addition to Transmission Authority User's Groups by presenting technical papers and taking part in their working groups and task forces. This global involvement in the electrical industry is an important component of Eaton's complete solution as it allows us to stay up to date with the most relevant challenges and the means to deal with them to provide the best asset management.

For more information, visit
[Eaton.com/NERCstandards](https://www.eaton.com/NERCstandards)