



Consulting Services

GENERATOR PROTECTION STUDY AND RELAY SETTINGS

NERC PRC Standard Compliance Services

Maintaining high reliability for the bulk electric system (BES) is essential to grid stability. As such, the North American Electric Reliability Corporation (NERC) has adopted several standards that require the coordination of protection between BES equipment and entities, including setting load responsive relaying to prevent unnecessary tripping during system disturbances. And GE Vernova's Consulting Services team can help you cost-effectively implement these standards through our NERC Protection and Control (PRC) standard compliance services.

As a world leader in heavy duty turbine and generator manufacturing, GE Vernova has decades of experience evaluating the design and operation of all generator frame sizes for gas, steam, combined cycle, nuclear, synchronous condensers and renewable generation, including hybrid and battery energy storage system (BESS) power plants. With the completion of hundreds of power plant protection studies, more than 20 years of experience in generator protection industry standard development, and the development of GE-specific generator protection and operation technical references, our Energy Consulting Services team is uniquely qualified to evaluate NERC PRC compliance and provide coordination recommendations.

KEY BENEFITS PROVIDED BY CONSULTING SERVICES:

- **Experience:** Proven track record conducting more than 300 thermal and renewable generating plant protection studies
- **Expertise:** Decades of involvement in developing industry standards and technical references related to power plant protection

- **Efficiency:** Unique knowledge of GE's units as well as wide-ranging experience with non-GE turbines, generators, controls, automatic voltage regulators (AVRs), and protective relays
- **Education:** A team of experts with a thorough understanding of equipment capabilities and limitations

NERC PRC STANDARDS

PRC-019-2: Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection

PRC-024-2: Generator Frequency and Voltage Protective Relay Settings

PRC-025-1: Generator Relay Loadability

PRC-026-1: Relay Performance During Stable Power Swings

PRC-027-1: Coordination of Protection System Performance During Faults

DATA REQUIREMENTS

The Consulting Services team works with you to gather the specific generator, turbine control, excitation system, and other data needed. All NERC PRC standard compliance services are performed from our offices in Schenectady, NY.



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