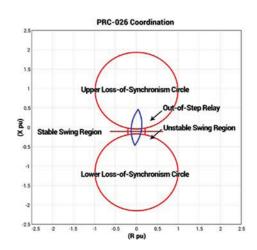


## Sargent & Lundy

## **Generator Protection Support & NERC Compliance**



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Sargent & Lundy is a full-service engineering and consulting firm dedicated exclusively to electric power and energy-intensive clients, with experienced engineers, designers, and support professionals working on power projects worldwide. Sargent & Lundy's history and extensive design experience in the power industry provide an invaluable perspective to support its clients in the assessment, development, financing, and implementation of power generation and transmission projects.

North American Electric Reliability Corporation (NERC) Reliability Standards define the dependability requirements for planning and operating the North American bulk power system. All utilities must review protection systems for their generators, main transformers, auxiliary transformers, and transmission systems to ensure their equipment settings and schemes are in compliance with NERC requirements.

NERC Protection and Control (PRC) standards PRC-002, PRC-019, PRC-023, PRC-024, PRC-025, PRC-026, and PRC-027 all require utilities to maintain documents supplying evidence of compliance. Sargent & Lundy has been providing services in support of NERC PRC standards since their inception and continues to support utilities in their efforts to upgrade and maintain their protection systems.

Our services include:

- Review of existing protection for NERC compliance and adherence to the latest recommendations of Institute of Electrical and Electronics Engineers (IEEE) standard C37.102. Expertise includes both electromechanical and microprocessor relays.
- Review of generator excitation system (automatic voltage regulator).
- Development of NERC compliance documentation, including data collection, system reviews, and relay and excitation system settings analyses.
- Design and implementation of protection system upgrades or modifications to meet IEEE and NERC requirements.
- Third-party review of NERC compliance documentation.