NERC Compliance PRC-019

Power System Studies

KINECTRICS
a BWXT company

Project Objective

NERC Protective and Control (PRC) standards have been implemented as a comprehensive plan to increase performance and reliability of the North American Bulk Electricity System (BES) in response to the 2003 blackout that ocurred in the Northeast United States and Canada.

The intent of PRC-019 is to verify that regulating controls, limiters, equipment capabilities, and protection controls installed at generation facilities are appropriately ordinated and in-turn, do not worse adverse power grid conditions during a system disturbance.

Kinectrics was engaged by Liberty Power to provide an engineering study for compliance at their Cogeneration plants in California.



Client: Liberty

Location: Sanger, California

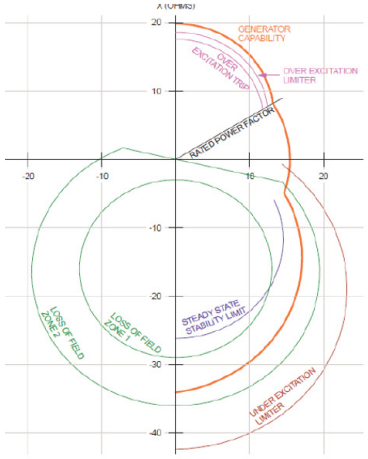
Project Scope:

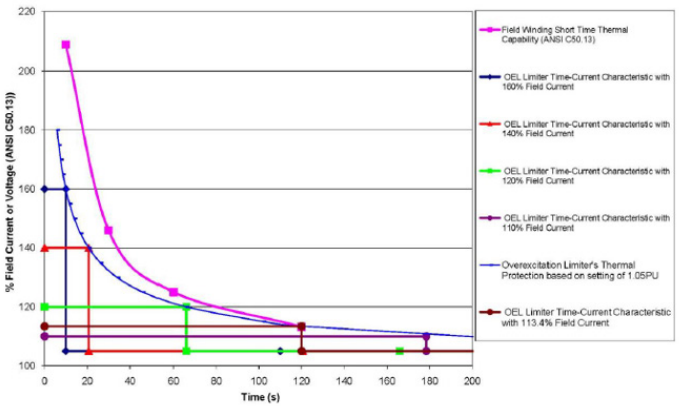
- We performed a NERC-019 compliance study for a utility's cogeneration plant, consisting of one combustion turbine generating unit and one steam turbine generating unit.
- The generating units are connected to the grid and are normally operated during the day. The combined total power generation of the power plant is set by the grid operation order.
- As part of the study, we reviewed and studied the existing generator information for cogeneration facility.
- The coordination of generating unit facility voltage regulating controls, limit functions, equipment capabilities, and protection system settings were verified as per the NERC standard.

Value Added Results

The reports were produced in a timely and efficient manner. We made recommendations for setting changes, in any case where the current setting did not meet PRC-019 requirement.

We worked with our client on all needed aspects of the protection and excitation limiter elements and supported improved coordination measures.





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