

**EXHIBIT A.2.4**  
**NERC REQUIREMENTS**

The following tables describes the minimum NERC requirements.

**Table 1: FAC – 008 NERC Standard Requirements**

NERC Standard Title	Facility Ratings
Requirement	R1, R6
Standard Summary	Ensure Facility ratings used are determined based on technically sound principles.
Reference	EPR 5.200 Facility Rating and Reporting, EPR-5.220P01 NERC Facility Rating Methodology
Responsible Party	Contractor to develop the report.
Required Evidence	Comprehensive report including equipment and conductor ratings from individual generators to point of interconnection including current transformer ratings. Report to be submitted as part of 90% design documents

**Table 2: MOD – 025 NERC Standard Requirement**

NERC Standard Title	Verification and Data Reporting of Generator Real and Reactive Power Capability and Synchronous Condenser Reactive Power Capability
Requirement	R1, R2
Standard Summary	Ensure accurate information on generator gross and net Real and Reactive Power capability and synchronous condenser Reactive Power capability is available for planning models.
Reference	EPR 5.201S Stability Modeling Data Maintenance and Reporting Requirements
Responsible Party	Contractor to develop test plan and complete the necessary documentation after testing is complete. Owner will conduct the test and collect the data.
Required Evidence	Comprehensive report including test plan and test results for MOD-025 testing Report to be submitted within 60 days following substantial completion.

**Table 3: MOD – 026 NERC Standard Requirements**

NERC Standard Title	Verification of Models and Data for Generator Excitation Control System or Plant Volt/VAR Control Functions
Requirement	R2, R4
Standard Summary	Verify the generator excitation control system or plant volt/var control function model and the model parameters used in dynamic simulations accurately represent the generator excitation control system or plant volt/var control function behavior.
Reference	EPR 5.201S Stability Modeling Data Maintenance and Reporting Requirements
Responsible Party	Contractor to develop a test plan in consultation with the MOD-026 modeling company (Electric Power Engineers (EPE) or owner approved equal). The test plan is to be submitted to the Owner for approval. Contractor to coordinate and conduct the test and collect the data required
Required Evidence	Comprehensive report including modeling of the Var/Volt Control and verification testing of the model per MOD-026. Report due within 60 days following substantial completion.

**Table 4: MOD – 027 NERC Standard Requirements**

NERC Standard Title	Verification of Models and Data for Turbine/Governor and Load Control or Active Power/Frequency Control Functions
Requirement	R2, R4
Standard Summary	Verify the turbine/governor and load control or active power/frequency control model and model parameters used in dynamic simulations accurately represent generator unit real power response to system frequency variations.
Reference	EPR 5.201S Stability Modeling Data Maintenance and Reporting Requirements
Responsible Party	Contractor to develop a test plan in consultation with the MOD-027 modeling company (Electric Power Engineers (EPE) or owner approved equal). The test plan is to be submitted to the owner for approval. Contractor to coordinate and conduct the test and collect the data required.
Required Evidence	Comprehensive report including modelling the active power / frequency control and verification testing of the model to meet MOD-027. Report due within 60 days following substantial completion.

**Table 5: PRC – 005 NERC Standard Requirements**

NERC Standard Title	Protection System Maintenance
Requirement	Testing plan designed to assist with Owner’s compliance with PRC-005 to be submitted for Owner’s review and approval prior to testing activities. Final report including all Required Evidence.
Standard Summary	Document and implement programs for the maintenance of all Protection Systems affecting the reliability of the BES so that these Protection Systems are kept in working order.
Reference	EPR 5.704S Battery Maintenance Standard EPR 5.714S Protective Relay Maintenance Standard
Responsible Party	Contractor shall produce all of the necessary documentation.
Required Evidence	<p>Settings files for all protective relays</p> <p>Documentation of testing proving functionality of A/D converters in relays and relay inputs and outputs.</p> <p>Documentation of instrument transformer testing including wiring to relays. Load check of relays when at power to prove proper relay receipt of instrument transformer signal.</p> <p>Documentation of functional testing of control circuitry from the relay output through the trip coils of actuated circuit breakers.</p> <p>Documentation of testing of protection system communication systems – lines interconnecting to remote substations.</p> <p>Completion of initial battery testing including capacity testing.</p> <p>Commissioning testing of substation including end to end testing of line relaying.</p> <p>Written testing procedure to be submitted for review.</p> <p>All documentation submitted to Owner for review two weeks prior to Commercial Operation Date.</p>

**Table 6: PRC – 019 NERC Standard Requirements**

NERC Standard Title	Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection
Requirement	R1 [Note that R2 Requirements falls under the Owner’s responsibilities following the project going into commercial operation]
Standard Summary	Verify coordination of generating unit Facility or synchronous condenser voltage regulating controls, limit functions, equipment capabilities and Protection System settings.
Reference	EPR 5.202S NERC Protection System Coordination, Relay Setting, and Reporting Requirements
Responsible Party	Contractor
Required Evidence	Provide evidence of coordinating the voltage regulating system controls, including in-service limiters and protection functions, with the applicable equipment capabilities and settings of the applicable Protection System devices and functions as specified in Requirement R1. The first draft of the report to be completed and approved by Owner as part of the 90% submittal data. The final version is issued as an IFC document.

**Table 7: PRC – 024 NERC Standard Requirements**

NERC Standard Title	Generator Frequency and Voltage Protective Relay Settings
Requirement	R1, R2, R3
Standard Summary	Ensure that generator protective relays are set such that generating units remain connected during defined frequency and voltage excursions.
Reference	EPR 5.202S NERC Protection System Coordination, Relay Setting, and Reporting Requirements
Responsible Party	Contractor
Required Evidence	Comprehensive report of evidence that relay settings meet PRC-024 voltage and frequency ride through requirements. The first draft of the report to be completed and approved by Owner as part of the 90% submittal data. The final version is issued as an IFC document.

**Table8: PRC – 025 NERC Standard Requirements**

NERC Standard Title	Generator Relay Loadability
Requirement	R1
Standard Summary	Set load-responsive protective relays associated with generation Facilities at a level to prevent unnecessary tripping of generators during a system disturbance for conditions that do not pose a risk of damage to the associated equipment.
Reference	EPR 5.202S NERC Protection System Coordination, Relay Setting, and Reporting Requirements
Responsible Party	Contractor
Required Evidence	Comprehensive report of evidence that relay settings are set per PRC-025 methodology for applicable relay type, application, and anticipated loads. The first draft of the report to be completed and approved by Owner as part of the 90% submittal data. The final version is issued as an IFC document.

**Table 9: PRC – 027 NERC Standard Requirements**

NERC Standard Title	Coordination of Protection Systems for Performance During Faults
Requirement	R1, R3
Standard Summary	Set protection relays so that they operate in their intended sequence during faults.
Reference	EPR 5.202S NERC Protection System Coordination, Relay Setting, and Reporting Requirements
Responsible Party	Contractor and Owner shall document coordination with the transmission owner. Contactor shall provide the relay coordination study that has been developed per a process meeting the requirements of R1.
Required Evidence	Provide a relay coordination study per PRC-027. Provide documentation that Transmission Owner has reviewed and approved Project Engineer of Record (EOR) provided settings applied for the protection of the interconnecting element and that Project EOR has reviewed and approved Transmission Owner provided settings applied by the Transmission Owner for protection of the interconnecting element. This study should also include validation that relay setpoints in the PRC-027 Coordination study match those in the studies for PRC-019, “Coordination of Generating Unit or Plant Capabilities, Voltage Regulating Controls, and Protection”; PRC-024, “Generator Frequency and Voltage Protective Relay Settings”; and PRC-025, “Generator Relay Loadability”. This includes protective relaying associated with aggregating system and step-up transformers. PRC-027 portion of relay coordination study to be completed and approved by Owner as part of the 90% electrical design submittal data. The final version is issued as an IFC document.