Standard MOD-025-1 NERC Board Approved	Comment	Proposed Standard MOD-025-2
1. Number: MOD-025-1	Proposed standard will cover MOD-025-1 content and will include requirements from MOD-024-1.	**1. Number:** MOD-025-2
2. Title: Verification of Generator Gross and Net Reactive Power Capability	Data Reporting has been added to reflect related requirements in the proposed Standard. Real has been added to include requirements from MOD-024-1.	**2. Title:** Verification and Data Reporting of Generator Real and Reactive Power Capability
3. Purpose: To ensure accurate information on generator gross and net Reactive Power capability is available for steady-state models used to assess Bulk Electric System reliability.	The Purpose has been modified to ensure that planning entities have accurate generator Real and Reactive Power capability data.	**3. Purpose:** To ensure that planning entities have accurate generator Real and Reactive Power capability data when assessing Bulk Electric System (BES) reliability.
4. Applicability: **4.1.** Regional Reliability Organization. **4.2.** Generation Owner.	Regional Reliability Organization applicability is eliminated and functional entity responsibility is defined. Facility Applicability has been added.	**4. Applicability:** **4.1 Functional entities** 4.1.1 Generator Owner 4.1.2 Transmission Owner **4.2 Facilities:** 4.2.1 Individual generating unit or synchronous condenser greater than 20 MVA (gross nameplate rating) in a generating Facility connected at the point of interconnection at 100 kV or above. 4.2.2 Generating plant/Facility greater than 75 MVA (gross

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		aggregate nameplate rating) and connected at the point of interconnection at 100 kV or above. 4.2.3 Blackstart units, regardless of size that are included in a Transmission Operator's restoration plan.
R1. The Regional Reliability Organization shall establish and maintain procedures to address verification of generator gross and net Reactive Power capability. These procedures shall include the following:	Regional applicability is eliminated and functional entity responsibility is defined Verification, including reporting, is addressed throughout proposed Standard.	**Requirements R1 and R2** defines the verification and data reporting previously addressed by regional procedures. These requirements are detailed in the following mapping.
R1.1. Generating unit exemption criteria including documentation of those units that are exempt from a portion or all of these procedures.	Exemption criteria are addressed by Section 4.2, **Applicability,** which follows the Registry Criteria.	**4. Applicability:** **4.1 Functional entities** 4.1.1 Generator Owner 4.1.2 Transmission Owner **4.2 Facilities:** 4.2.1 Individual generating unit or synchronous condenser greater than 20 MVA (gross nameplate rating) in a generating Facility connected at the point of interconnection at 100 kV or above. 4.2.2 Generating plant/Facility greater than 75 MVA (gross aggregate nameplate rating) and connected at the point of interconnection at 100 kV or above. 4.2.3 Blackstart units, regardless of size that are included in a Transmission Operator's restoration plan.
R1.2. Criteria for reporting generating	**R1** references **Attachment**	**R1.** Each Generator Owner shall: [Violation Risk Factor: Lower] [Time

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unit auxiliary loads.	**1.** **Attachment 1**, Section 4 refers to Attachment 2, which is a reporting form or the basis for developing a more specialized form that provides all the auxiliary information required by the Standard. **Attachment 1,** section 4.1 allows engineering estimates in those situations where metering to measure a reactive load is not installed.	Horizon: Long-term Planning] **R1.1.** Verify the Real and Reactive Power capability of its generating units and shall verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1. **R1.2.** Record the information on Attachment 2 (or on the Generator Owner's form that contains the same information as Attachment 2); **R1.3.** Submit within 90 calendar days of the date the data is recorded to its Planning Coordinator.
R1.3. Acceptable methods for model and data verification, including any applicable conditions under which the data should be verified. Such methods can include use of manufacturer data, commissioning data, performance tracking, and testing, etc.	**Requirements R1, and R2,** reference **Attachment 1.** Section 2 of **Attachment 1** prescribes the details of how the verification should be performed.	**R1.** Each Generator Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R1.1.** Verify the Real and Reactive Power capability of its generating units and shall verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1. **R1.2.** Record the information on Attachment 2 (or on the Generator Owner's form that contains the same information as Attachment 2); **R1.3.** Submit within 90 calendar days of the date the data is recorded to its Planning Coordinator. **R2.** Each Transmission Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R2.1.** Verify the Reactive Power capability of its synchronous

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		condenser units in accordance with Attachment 1 ; **R2.2.** Record the information on Attachment 2 (or on the Transmission Owner's form that contains the same information as Attachment 2) **R2.3.** Submit within 90 calendar days of the verification to its Planning Coordinator.
R1.4. Periodicity and schedule of model and data verification and reporting.	**Requirements R1, and R2,** reference **Attachment 1.** Section 5 of **Attachment 1** details the periodicity.	**R1.** Each Generator Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R1.1.** Verify the Real and Reactive Power capability of its generating units and shall verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1. **R1.2.** Record the information on Attachment 2 (or on the Generator Owner's form that contains the same information as Attachment 2); **R1.3.** Submit within 90 calendar days of the date the data is recorded to its Planning Coordinator. **R2.** Each Transmission Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R2.1.** Verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1 ; **R2.2.** Record the information on Attachment 2 (or on the Transmission Owner's form that contains the same information as Attachment 2) **R2.3.** Submit within 90 calendar days of the verification to its Planning Coordinator.

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R1.5. Information to be reported: **R1.5.1.** Verified maximum gross and net Reactive Power capability (both lagging and leading) at Seasonal Real Power generating capability as reported in accordance with MOD-024 Requirement 1.5.1. **R1.5.2.** Verified Reactive Power limitations, such as generator terminal voltage limitations, shorted rotor turns, etc. **R1.5.3** Verified Reactive Power of Auxiliary loads. **R1.5.4.** Method of verification, including date and conditions.	**Requirements R1, and R2,** reference **Attachment 1.** Section 3 of **Attachment 1** details the data to be recorded during the verification. .	**R1.** Each Generator Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R1.1.** Verify the Real and Reactive Power capability of its generating units and shall verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1. **R1.2.** Record the information on Attachment 2 (or on the Generator Owner's form that contains the same information as Attachment 2); **R1.3.** Submit within 90 calendar days of the date the data is recorded to its Planning Coordinator. **R2.** Each Transmission Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R2.1.** Verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1 ; **R2.2.** Record the information on Attachment 2 (or on the Transmission Owner's form that contains the same information as Attachment 2) **R2.3.** Submit within 90 calendar days of the verification to its Planning Coordinator.
R2. The Regional Reliability Organization shall provide its generator gross and net Reactive Power capability verification and reporting procedures, and any changes to those procedures, to the Generator Owners, Generator Operators, Transmission Operators, Planning Authorities, and Transmission Planners affected by the	Regional Reliability Organization applicability is eliminated and functional entity responsibility is defined in **R1** and **R2**.	**R1.** Each Generator Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R1.1.** Verify the Real and Reactive Power capability of its generating units and shall verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1. **R1.2.** Record the information on Attachment 2 (or on the Generator Owner's form that contains the same information as Attachment 2);

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procedure within 30 calendar days of the approval.		**R1.3.** Submit within 90 calendar days of the date the data is recorded to its Planning Coordinator. **R2.** Each Transmission Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R2.1.** Verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1 ; **R2.2.** Record the information on Attachment 2 (or on the Transmission Owner's form that contains the same information as Attachment 2) **R2.3.** Submit within 90 calendar days of the verification to its Planning Coordinator.
R3. The Generator Owner shall follow its Regional Reliability Organization's procedures for verifying and reporting its Reactive Power generating capability per R1.	Regional Reliability Organization applicability is eliminated and functional entity responsibility is defined in **R1 and R2**. The Transmission Owner has been added to include synchronous condensers that are under the control of the TO.	**R1.** Each Generator Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R1.1.** Verify the Real and Reactive Power capability of its generating units and shall verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1. **R1.2.** Record the information on Attachment 2 (or on the Generator Owner's form that contains the same information as Attachment 2); **R1.3.** Submit within 90 calendar days of the date the data is recorded to its Planning Coordinator. **R2.** Each Transmission Owner shall: [Violation Risk Factor: Lower] [Time Horizon: Long-term Planning] **R2.1.** Verify the Reactive Power capability of its synchronous condenser units in accordance with Attachment 1 ; **R2.2.** Record the information on Attachment 2 (or on the Transmission Owner's form that contains the same information as Attachment 2)

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		R2.3. Submit within 90 calendar days of the verification to its Planning Coordinator.