A. Introduction

1. Title: Facility Connection Requirements

2. **Number:** FAC-001-0-1

Purpose: To avoid adverse impacts on reliability, Transmission Owners <u>and Generator</u> Owners must establish <u>F</u>facility connection and performance requirements.

4. Applicability:

4.1. Transmission Owner

4.2. Applicable Generator Owner

4.1.2.4.1. Generator Owner with an executed Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility

The drafting team limited its modifications to those associated

with expanding the scope to include the Generator Owner and

bringing the format up to date.

5. Effective Date:

- 5.1. In those jurisdictions where regulatory approval is required, all requirements applied to the Transmission Owner become effective upon approval. In those jurisdictions where no regulatory approval is required, all requirements applied to the Transmission Owner and Regional Entity become effective upon Board of Trustees' adoption.
- 5.2. In those jurisdictions where regulatory approval is required, all requirements applied to the Generator Owner become effective on the first calendar day of the first calendar quarter one year after the date of the order approving the standard from applicable regulatory authorities. In those jurisdictions where no regulatory approval is required, all requirements applied to the Generator Owner become effective on the first calendar day of the first calendar quarter one year after Board of Trustees' adoption.

5. April 1, 2005

B. Requirements

- R1. The Transmission Owner shall document, maintain, and publish Ffacility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Reliability OrganizationEntity, subregional, Power Pool, and individual Transmission Owner planning criteria and Ffacility connection requirements. The Transmission Owner's Ffacility connection requirements shall address connection requirements for:
 - **1.1.** Generation Ffacilities,
 - **1.2.** Transmission Ffacilities, and
 - **R2.** End-user Ffacilities
 - 1.3.

[VRF – Medium]

R2. Each applicable Generator Owner, within 45 days of executing an Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility (under FAC-002-1), shall document and publish and thereafter maintain Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.

$\mathbf{R3.}$ [VRF – Medium]

- **R3.** Each applicable Generator Owner with Facility connection requirements and each The Transmission Owner shall have Facility connection requirements that address the following items:
 - **3.1.** Provide a written summary of its plans to achieve the required system performance as described above in Requirements R1 and R2 throughout the planning horizon:
 - **3.1.1.** Procedures for coordinated joint studies of new <u>Ff</u>acilities and their impacts on the interconnected <u>T</u>transmission <u>S</u>systems.
 - **3.1.2.** Procedures for notification of new or modified <u>F</u>facilities to others (those responsible for the reliability of the interconnected <u>t</u>Transmission <u>S</u>systems) as soon as feasible.
 - **3.1.3.** Voltage level and MW and MVAR capacity or demand at point of connection.
 - **3.1.4.** Breaker duty and surge protection.
 - **3.1.5.** System Protection and coordination.
 - **3.1.6.** Metering and telecommunications.
 - **3.1.7.** Grounding and safety issues.
 - **3.1.8.** Insulation and insulation coordination.
 - **3.1.9.** Voltage, Reactive Power, and power factor control.
 - **3.1.10.** Power quality impacts.
 - **3.1.11.** Equipment Ratings.
 - **3.1.12.** Synchronizing of **F**facilities.
 - **3.1.13.** Maintenance coordination.
 - **3.1.14.** Operational issues (abnormal frequency and voltages).
 - **3.1.15.** Inspection requirements for existing or new Ffacilities.
 - **3.1.16.** Communications and procedures during normal and emergency operating conditions.

[VRF – Medium]

- Requirement R2) and each The Transmission Owner shall maintain and update its Ffacility connection requirements as required and. The Transmission Owner shall make documentation of these requirements available to the users of the Ttransmission Ssystem, the Regional Reliability OrganizationEntity, and NERC ERO on request (five business days).
 - **R4.** [VRF Medium]

C. Measures

- M1. The Transmission Owner shall make available (to its Compliance Monitor Enforcement Authority) for inspection evidence that it met all the requirements stated in Reliability Standard FAC 001-0 Requirement R1.
- M2. Each Generator Owner that executes an Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility shall make available (to its Compliance Enforcement Authority) evidence that it met all requirements stated in Requirement R2.
- **M2.M3.** Each applicable Generator Owner with Facility connection requirements and each The Transmission Owner shall make available (to its Compliance Monitor Enforcement Authority) for inspection evidence that it met all requirements stated in Reliability Standard FAC 001-0_Requirement R32.
- **M3.M4.** Each applicable Generator Owner with Facility connection requirements and each The Transmission Owner shall make available (to its Compliance Monitor Enforcement Authority) for inspection evidence that it met all the requirements stated in Reliability Standard FAC 001-0_Requirement R43.

D. Compliance

- 1. Compliance Monitoring Process
 - 1.1. Compliance Monitoring Responsibility Enforcement Authority

 Compliance Monitor: Regional Reliability Organization. Entity
 - 1.2. Compliance Monitoring Period and Reset Timeframe

On request (five business days).

1.2. Data Retention Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

The Transmission Owner shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• The Transmission Owner shall retain evidence of Requirement R1, Measure M1, Requirement R3, Measure M3, and Requirement R4, Measure M4 from its last audit.

The Generator Owner shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

• The Generator Owner shall retain evidence of Requirement R2, Measure M2,

Requirement R3, Measure M3, and Requirement R4, Measure M4 from its last audit.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.4. Additional Compliance Information

None.

1.3.

None specified.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance Violation Severity Levels

<u>R#</u>	Lower VSL	Moderate VSL	High VSL	Severe VSL
<u>R1</u>	Not Applicable.	The Transmission Owner failed to do one of the following: Document or maintain or publish Facility connection requirements as specified in the Requirement OR Failed to include one (1) of the components and specified in R1.1, R1.2 or R1.3.	The Transmission Owner failed to do one of the following: Document or maintain or publish its Facility connection requirements as specified in the Requirement OR Failed to include (2) of the components as specified in R1.1, R1.2 or R1.3 OR Failed to document or maintain or publish its Facility connection requirements as specified in the Requirement as specified in the Requirement as	The Transmission Owner did not develop Facility connection requirements.

			one (1) of the components as specified in R1.1,	
<u>R2</u>	The responsible entity failed to document and publish and thereafter maintain Facility connection requirements until more than 45 calendar days but less than or equal to 60 calendar days after executing an Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility.	The responsible entity failed to document and publish and thereafter maintain Facility connection requirements until more than 60 calendar days but less than or equal to 70 calendar days after executing an Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility.	R1.2 or R1.3. The responsible entity failed to document and publish and thereafter maintain Facility connection requirements until more than 70 calendar days but less than or equal to 80 calendar days after executing an Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility.	The responsible entity failed to document and publish and thereafter maintain Facility connection requirements until more than 80 days after executing an Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facility.
<u>R3</u>	The responsible entity's Facility connection requirements failed to address one of the subrequirements.	The responsible entity's Facility connection requirements failed to address two of the subrequirements.	The responsible entity's Facility connection requirements failed to address three of the sub-requirements.	The responsible entity's Facility connection requirements failed to address four or more of the subrequirements.
				The responsible entity does not have Facility connection requirements.
<u>R4</u>	The responsible entity made the requirements available more than five business days but less than or equal to 10 business days after a request.	The responsible entity made the requirements available more than 10 business days but less than or equal to 20 business days after a request.	The responsible entity made the requirements available more than 20 business days less than or equal to 30 business days after a request.	The responsible entity made the requirements available more than 30 business days after a request.

- **2.1.** Level 1: Facility connection requirements were provided for generation, transmission, and end user facilities, per Reliability Standard FAC 001-0_R1, but the document(s) do not address all of the requirements of Reliability Standard FAC 001-0-R2.
- 2.2. Level 2: Facility connection requirements were not provided for all three categories (generation, transmission, or end user) of facilities, per Reliability Standard FAC 001 0_R1, but the document(s) provided address all of the requirements of Reliability Standard FAC 001 0_R2.
- **2.3. Level 3:** Facility connection requirements were not provided for all three categories (generation, transmission, or end-user) of facilities, per Reliability Standard FAC 001 0_R1, and the document(s) provided do not address all of the requirements of Reliability Standard FAC 001 0_R2.
- **2.4.** Level 4: No document on facility connection requirements was provided per Reliability Standard FAC 001-0_R3.

E. Regional Differences

1. None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
<u>1</u>	<u>TBD</u>	Added requirements for Generator Owner and brought overall standard format up to date	Revision under Project 2010-07