A. Introduction

1. Title: Facility Connection Requirements

2. Number: FAC-001-1

Purpose: To avoid adverse impacts on reliability, Transmission Owners and Generator Owners must establish Facility connection and performance requirements.

4. Applicability:

4.1. Transmission Owner

4.2. Applicable Generator Owner

4.2.1 Generator Owner within an executed Agreement to evaluate the reliability impact of interconnecting another Facility to its existing generation Facilitya third party Facility to the Generator Owner's existing Facility that is used to interconnect to the Transmission System.

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 <u>regulatory</u> 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.

B. Requirements

- **R1.** The Transmission Owner shall document, maintain, and publish 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. The Transmission Owner's Facility connection requirements shall address connection requirements for:
 - **1.1.** Generation Facilities,
 - **1.2.** Transmission Facilities, and
 - **1.3.** End-user Facilities

[VRF – Medium]

R2. Each applicable Generator Owner shall, within 45 days of having an executed Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to the Transmission System 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 its 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.

[VRF – Medium]

- **R3.** Each <u>Transmission Owner and each</u> applicable Generator Owner (<u>in accordance with Requirement R2</u>) with <u>Facility connection requirements and each Transmission Owner shall have Facility connection requirements that address the following items <u>in its</u> Facility connection requirements:</u>
 - **3.1.** Provide a written summary of its plans to achieve the required system performance as described in Requirements R1 and or R2 throughout the planning horizon:
 - **3.1.1.** Procedures for coordinated joint studies of new Facilities and their impacts on the interconnected Transmission Systems.
 - **3.1.2.** Procedures for notification of new or modified Facilities to others (those responsible for the reliability of the interconnected Transmission 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 Facilities.
 - **3.1.13.** Maintenance coordination.
 - **3.1.14.** Operational issues (abnormal frequency and voltages).
 - **3.1.15.** Inspection requirements for existing or new Facilities.
 - **3.1.16.** Communications and procedures during normal and emergency operating conditions.

[VRF – Medium]

R4. The Transmission Owner shall Each applicable Generator Owner with Facility connection requirements (in accordance with Requirement R2) and each Transmission Owner shall maintain Facility connection requirements and maintain and update its Facility connection

<u>requirements as required. The Transmission Owner shall</u>_make documentation of these requirements available to the users of the <u>t</u>Transmission <u>s</u>System, the Regional Entity, and ERO on request (five business days).

[VRF – Medium]

C. Measures

- **M1.** The Transmission Owner shall make available (to its Compliance Enforcement Authority) evidence that it met all the requirements stated in Requirement R1.
- M2. Each Generator Owner that has an executed Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to the Transmission System 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.
- M3. Each Transmission Owner and each applicable Generator Owner (in accordance with Requirement R2) Each applicable Generator Owner with Facility connection requirements and each Transmission Owner shall make available (to its Compliance Enforcement Authority) evidence that it met all requirements stated in Requirement R3.
- **M4.** Each applicable Generator Owner with Facility connection requirements and each The Transmission Owner shall make available (to its Compliance Enforcement Authority) evidence that it met all the requirements stated in Requirement R4.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

Compliance Monitor: Regional Entity

1.2. 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, and 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.

2. Violation Severity Levels

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
	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 as 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	The Transmission Owner did not develop Facility connection requirements.
			Failed to document or maintain or publish its Facility connection requirements as specified in the Requirement and failed to include one (1) of the components as specified in R1.1, R1.2 or R1.3.	

R2	The responsible	The Generator Owner	The Generator Owner	The Generator
112	entityGenerator Owner	responsible entity	responsible entity	Owner responsible
	failed to document and	failed to document and	failed to document and	entity failed to
	publish and thereafter	publish and thereafter	publish and thereafter	document and
	maintain Facility	maintain Facility	maintain Facility	publish and
	connection	connection	connection	thereafter maintain
			* * * * * * * * * * * * * * * * * * * *	
	requirements until	requirements until	requirements until	Facility connection
	more than 45 calendar	more than 60 calendar	more than 70 calendar	requirements until
	days but less than or	days but less than or	days but less than or	more than 80 days
	equal to 60 calendar	equal to 70 calendar	equal to 80 calendar	after <u>having an</u>
	days after <u>having an</u>	days after <u>having an</u>	days after <u>having an</u>	Agreement to
	Agreement to evaluate	Agreement to evaluate	Agreement to evaluate	evaluate the
	the reliability impact of	the reliability impact of	the reliability impact	reliability impact of
	interconnecting a third	interconnecting a third	of interconnecting a	interconnecting a
	party Facility to the	party Facility to the	third party Facility to	third party Facility
	Generator Owner's	Generator Owner's	the Generator Owner's	to the Generator
	existing Facility that is	existing Facility that is	existing Facility that is	Owner's existing
	used to interconnect to	used to interconnect to	used to interconnect to	Facility that is used
	the Transmission	the Transmission	the Transmission	to interconnect to
	System.executing an	System.executing an	System.executing an	the Transmission
	Agreement to evaluate	Agreement to evaluate	Agreement to evaluate	System.executing an
	the reliability impact of	the reliability impact of	the reliability impact	Agreement to
	interconnecting another	interconnecting another	of interconnecting	evaluate the
	Facility to its existing	Facility to its existing	another Facility to its	reliability impact of
	generation Facility.	generation Facility.	existing generation	interconnecting
	generation racinty.	generation racinty.		another Facility to
			Facility.	_
				its existing
D2	771	771	701 '11	generation Facility.
R3	The responsible	The responsible	The responsible	The responsible
	entity's Facility	entity's Facility	entity's Facility	entity's Facility
	connection	connection	connection	connection
	requirements failed to	requirements failed to	requirements failed to	requirements failed
	address one of the Parts	address two of the	address three of the	to address four or
	<u>listed in Requirement</u>	Parts listed in	Parts listed in	more of the Parts
	R3, Part 3.1.1	Requirement R3, Part	Requirement R3, Part	<u>listed in</u>
	R3.1.6 subrequirements.	<u>3.1.1</u>	3.1.1 R3.1.6sub-	Requirement R3,
	_	R3.1.6 subrequirements.	requirements.	Part 3.1.1
		•	•	R3.1.6subrequireme
				nts .
				OR
				The responsible
				entity does not have
				Facility connection
D 4	TT1 11 1	TT1 11 1	TD1 11.1	requirements.
R4	The responsible entity	The responsible entity	The responsible entity	The responsible
1	made the requirements	made the requirements	made the requirements	entity made the
	available more than	available more than 10	available more than 20	requirements

five business days but	business days but less	business days less than	available more than
less than or equal to 10	than or equal to 20	or equal to 30 business	30 business days
business days after a	business days after a	days after a request.	after a request.
request.	request.		

Regional Differences E.

None identified.

Version History

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