

## Standards Authorization Request Form

When completed, please email this form to:  
[sarcomm@nerc.com](mailto:sarcomm@nerc.com)

NERC welcomes suggestions to improve the reliability of the Bulk-Power System through improved Reliability Standards. Please use this form to submit your request to propose a new or a revision to a NERC's Reliability Standard.

### Request to propose a new or a revision to a Reliability Standard

Title of Proposed Reliability Standard:	<del>Connecting New Facilities to the Bulk Electric System (FAC-001-12 – Facility <u>Inter</u>connection Requirements and FAC-002-21 – Coordination of Plans for New Generation, Transmission, and End-User Facilities)</del> <u>Facility Interconnection Studies</u>
Date <del>Submitted</del> <u>Finalized</u> :	<del>December 3, 2013</del> <u>March 31, 2014</u>

### SAR Requester Information

Name:	The FAC Five-Year Review Team ( <a href="#">Roster</a> )		
Organization:	N/A		
Telephone:	N/A	E-mail:	N/A

### SAR Type (Check as many as applicable)

<input type="checkbox"/> New Reliability Standard	<input type="checkbox"/> Withdrawal of existing Reliability Standard
<input checked="" type="checkbox"/> Revision to existing Reliability Standards	<input type="checkbox"/> Urgent Action

### SAR Information

Industry Need (What is the industry problem this request is trying to solve?):

The Standards Committee assigned six subject matter experts to review the FAC family of Reliability Standards as part of NERC's obligation to conduct periodic reviews of its Reliability Standards. The Five-Year Review Team determined that FAC-001-1 and FAC-002-1 remain necessary for reliability to ensure

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<p>that entities establish Facility connection requirements and then conduct assessments using those requirements before integrating new Facilities. Both Reliability Standards, however, require revision to refocus industry effort on those tasks that have a true impact on reliability.</p>
<p>Purpose or Goal (How does this request propose to address the problem described above?):</p>
<p>This SAR proposes revising FAC-001-1 and FAC-002-1 in line with the recommendations of the FAC Five-Year Review Team to add clarity, remove redundancy, retire requirements with no impact on the reliable operation of the Bulk Electric System (based on application of the Paragraph 81 criteria), and bring compliance elements in accordance with NERC guidelines.</p>
<p>Identify the Objectives of the proposed Reliability Standard’s requirements (What specific reliability deliverables are required to achieve the goal?):</p>
<p>The objective of FAC-001-1 is to ensure that Transmission Owners and Generator Owners establish Facility requirements so that Facilities seeking interconnection will have the information necessary for considering and pursuing that interconnection. This objective supports reliability principle 3, which states that “information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.”</p> <p>The objective of FAC-002-1 is to ensure that the entities involved in the integration of new Facilities conduct assessments – using the connection requirements established in FAC-001-1 – before any interconnection occurs so that the interconnection is determined to be technically feasible and reliable. This objective supports reliability principle 1, which states that “interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Reliability Standards.”</p>
<p>Brief Description (Provide a paragraph that describes the scope of this Reliability Standard action.)</p>
<p>FAC-001-1 should be revised to retire a requirement (R4) that is redundant with obligations already captured in the Rules of Procedure, to remove subparts of a requirement (R3) that are too prescriptive for inclusion in a Reliability Standard, and to remove parts of the requirement (R1) that are redundant or have no impact on reliability. The VRFs should also be modified for conformance with NERC’s VRF guidelines.</p>

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FAC-002-1 should be revised to make clear the responsibilities of the various entities to whom the Reliability Standard is applicable. R1 should also be revised to retire parts of the requirement that are redundant or have no impact on reliability.

It may be determined, during the execution of this project, that FAC-001-1 and FAC-002-1 should be combined into one Reliability Standard.

Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR. Also provide a justification for the development or revision of the Reliability Standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the Reliability Standard action.)

Per the *FAC Five-Year Review Team Recommendation to Revise FAC-001-1*, the drafting team should consider:

- Revising the title and purpose of the Reliability Standard to reflect the language in the requirements.
- Retiring the following reference in R1: “...compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements” because it is redundant with FAC-002-1, R1.2 and built into the ERO framework established in Order 672.
- Retiring all of the subparts in R3, except for R3.1.1 and R3.1.2, and moving them to a guidance document.
- Modifying R3 to ensure that the impact on third parties is appropriately addressed.
- Retiring R4.
- Modifying the VRFs for conformance with NERC’s VRF guidelines.
- Adding Time Horizons to each requirement.

Per the *FAC Five-Year Review Team Recommendation to Revise FAC-002-1*, the drafting team should consider:

- Revising the title and purpose of the Reliability Standard to reflect the language in the requirements.
- Changing “Planning Authority” in the applicability section to “Planning Coordinator” to reflect the Functional Model, as well as the recently revised TPL-001-4.

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- Splitting R1 into three requirements to add clarity and better distinguish the actions required of the applicable entities. One requirement should describe the Transmission Planner and Planning Coordinators’ responsibility for conducting assessments. A second requirement should describe the Generator Owners’ responsibility for coordinating and cooperating with the Transmission Planner and Planning Coordinator as those assessments are conducted. A third requirement should describe the Transmission Owners’, Distribution Providers’, and Load-Serving Entities’ responsibility for coordinating and cooperating with the Transmission Planner and Planning Coordinator as those assessments are conducted.
- Revising the subparts of R1 to remove elements that are more appropriate for Measures.
- Modifying R1.1 to ensure that the impact on third parties is appropriately addressed.
- Modifying R1.4 to update the reference to the TPL Reliability Standards to reflect the changes in proposed TPL-001-4.
- Adding Time Horizons to each requirement.

Reliability Functions

The Reliability Standards will Apply to the Following Functions (Check each one that applies.)

<input type="checkbox"/> Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator’s wide area view.
<input type="checkbox"/> Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
<input type="checkbox"/> Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
<input checked="" type="checkbox"/> Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
<input type="checkbox"/> Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.

Reliability Functions	
<input checked="" type="checkbox"/> Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
<input type="checkbox"/> Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
<input checked="" type="checkbox"/> Transmission Owner	Owens and maintains transmission facilities.
<input type="checkbox"/> Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
<input checked="" type="checkbox"/> Distribution Provider	Delivers electrical energy to the End-use customer.
<input checked="" type="checkbox"/> Generator Owner	Owens and maintains generation facilities.
<input type="checkbox"/> Generator Operator	Operates generation unit(s) to provide real and reactive power.
<input type="checkbox"/> Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
<input type="checkbox"/> Market Operator	Interface point for reliability functions with commercial functions.
<input checked="" type="checkbox"/> Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles	
Applicable Reliability Principles (Check all that apply).	
<input checked="" type="checkbox"/>	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Reliability Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input checked="" type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.

Reliability and Market Interface Principles	
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.
Does the proposed Reliability Standard comply with all of the following Market Interface Principles?	
	Enter (yes/no)
1. A Reliability Standard shall not give any market participant an unfair competitive advantage.	Yes
2. A Reliability Standard shall neither mandate nor prohibit any specific market structure.	Yes
3. A Reliability Standard shall not preclude market solutions to achieving compliance with that Reliability Standard.	Yes
4. A Reliability Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with Reliability Standards.	Yes

Related Reliability Standards	
Reliability Standard No.	Explanation
TPL Family	FAC-002-1, R1.4 references TPL-001-0, TPL-002-0, and TPL-003-0. R1.4 requires that assessments include: "Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0." These Reliability Standards have been revised and combined in TPL-001-4, which will become enforceable on January 1, 2015. The drafting team should ensure that this reference is updated to either refer to TPL-001-4 or TPL Reliability Standards more generically.

Related SARs – N/A

SAR ID	Explanation

Regional Variances – N/A

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
RFC	
SERC	
SPP	
WECC	