Instructions
Please DO NOT use this form for commenting. Please use the electronic comment form to submit comments on the proposed revisions to FAC-001-1 and FAC-002-1. Comments must be submitted by **May 15, 2014**. If you have questions please contact Standards Developer Mallory Huggins at mallory.huggins@nerc.net or by telephone at 202-644-8062.
## Individual Commenter Information

(Complete this page for comments from one organization or individual.)

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### NERC Region

(check all Regions in which your company operates)

- [ ] ERCOT
- [ ] FRCC
- [ ] MRO
- [ ] NPCC
- [ ] RFC
- [ ] SERC
- [ ] SPP
- [ ] WECC
- [ ] NA - Not Applicable

### Registered Ballot Body Segment

(check all industry segments in which your company is registered)

- [ ] 1 — Transmission Owners
- [ ] 2 — RTOs and ISOs
- [ ] 3 — Load-serving Entities
- [ ] 4 — Transmission-dependent Utilities
- [ ] 5 — Electric Generators
- [ ] 6 — Electricity Brokers, Aggregators, and Marketers
- [ ] 7 — Large Electricity End Users
- [ ] 8 — Small Electricity End Users
- [ ] 9 — Federal, State, Provincial Regulatory or other Government Entities
- [ ] 10 — Regional Reliability Organizations and Regional Entities
Group Comments (Complete this page if comments are from a group.)

Group Name: 
Lead Contact: 
Contact Organization: 
Contact Segment: 
Contact Telephone: 
Contact E-mail: 

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\(^1\) If more than one Region or Segment applies, please list all that apply. Regional acronyms and segment numbers are shown on prior page.
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Background Information

Project 2010-02 Connecting New Facilities to the Grid is implementing the recommendations that the FAC Five-Year Review Team (FYRT) made with respect to FAC-001-1 and FAC-002-1. A Standard Authorization Request outlining the proposed changes to FAC-001-1 and FAC-002-1 was posted for an informal comment period from December 18, 2014 through January 17, 2014, and a standard drafting team was assigned by the Standards Committee on February 12, 2014.

In line with the recommendations of the FYRT, the SDT has proposed changes 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. The SDT has also addressed SAR comments, Order 693 directives related to FAC-002-0, the recommendations of the Independent Experts Review Panel, Phase 1 Paragraph 81 suggestions, and the recommendations of the Integration of Variable Generation Task Force.

You do not have to answer all questions. Enter all comments in simple text format. Insert a check mark in the appropriate boxes by double-clicking the gray areas.
Questions

1. The SDT has proposed the following key revisions to FAC-001-2:
   - Revised the title and purpose to reflect the language in the requirements.
   - Removed the reference in R1 to: “...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, R1.2.
   - Moved all of the subparts in R3, except for R3.1 and R3.2, and to the Guidelines and Technical Basis section. The SDT wants to provide entities with the flexibility to determine the Facility interconnection requirements that are technically appropriate for their respective Facilities. Including them as subparts of R3 was deemed too prescriptive, as frequently some items in the list will not apply to all applicable entities – and some applicable entities will have requirements that expand upon the list. The Guidelines should be used as a starting point for each Transmission Owner and applicable Generator Owner to consider in the development of Facility interconnection requirements.
   - Modified R3 to ensure that the impact on third parties is appropriately addressed.
   - Retired R4.
   - Updated all compliance elements: updated the Measures to add examples of acceptable evidence; modified the VSLs for conformance with the updated requirement language; modified the VRFs for conformance with NERC’s VRF guidelines; added Time Horizons to each requirement.

Do you agree with these revisions?
☐ Yes
☒ No

Comments: The title of FAC-001-2 should remain Facility Connection Requirements. Using Interconnection can be confusing because Interconnection is a defined term in the NERC Glossary, and not intended for use in the standard.
   - Requirement R2 – Suggest deleting “full” in the first sentence to be consistent with Applicability 4.1.2.1.
   - Parts 3.1 and 3.2 – The inclusion of the phrase “materially modified” should not be used in this standard. A modification (whether material or not) can only occur on an existing facility. According to the SAR, this standard is meant to apply to a new facility that might become interconnected (if ultimately constructed). Suggest keeping the wording “…interconnected transmission system(s)” instead of replacing with “…affected system(s)”.
   - The last sentence from the Application Guidelines section of the document should be removed. The Transmission Owner and applicable Generator Owner only need to consider the items preceding the last sentence in the development of Facility interconnection requirements. It is
the obligation of the owner and operator of the interconnecting Facility to comply with all applicable NERC Reliability Standards.

Revise Applicability 4.1.2.1 (remove “to on”) to read:

4.1.2.1 Generator Owner with an executed Agreement to conduct a study to determine the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the interconnected Transmission System.

Because “Facilities” cannot seek interconnect, suggest revising the Purpose to read: “...available so that entities seeking interconnection of their Facilities will have the...”

Revise the second sentence of Requirement R1 to read: “Each Transmission Owner’s Facility interconnection requirements shall address:” “Interconnection requirements” are stipulated in the first sentence of R1.

Remove the word “Facilities” from Parts 1.1, 1.2, and 1.3. R1 stipulates Facilities and the word does not need to be repeated.

Suggest revising R2 to read “Each applicable Generator Owner shall, within 45 days of execution of an Agreement to determine the reliability impact of...” “Full” is not needed, and using “determine” is clearer than “conduct a study on”.

Suggest revising Part 3.1 to read: “Procedures for conducting coordinated studies of new Facilities and their impacts on the interconnected systems.” “Materially modified” should not be used.

Suggest revising Part 3.2 to read: “Procedures for the notification to those entities responsible for the reliability of the interconnected system of the reliability impact of new Facilities on those interconnected systems.”

2. The SDT has proposed the following key revisions to FAC-002:
   - Revised the title and purpose to reflect the language in the requirements.
   - Rearranged the order of Functional Entities in the Applicability section to reflect the order in the Functional Model; changed “Planning Authority” in the applicability section to “Planning Coordinator” to reflect the Functional Model, as well as the recently revised TPL-001-4; added “Applicable Generator Owner” to the Applicability section so that R4 does not require a reference to FAC-001.
   - Separated R1 into four requirements to add clarity and better distinguish the actions required of the applicable entities.
Revised the subparts of R1 to remove elements that are more appropriate for Measures.
Modified R1.1 to ensure that the impact on third parties is appropriately addressed.
Modified R1.4 to remove the reference to the TPL Reliability Standards to avoid redundancy with the R1.2 reference to “all NERC Reliability Standards.”
Updated all compliance elements: added Measures, VRFs, and Time Horizons to each requirement; modified the VSLs for conformance with the updated requirement language.

Do you agree with these revisions?
☐ Yes
☒ No

Comments: Requirement R1 should be revised to include the words “and coordinate” as shown following:

R1. Each Transmission Planner and each Planning Coordinator shall conduct and coordinate studies on the reliability impact of integrating new or materially modified generation, transmission, or electricity end-user Facilities.

The actual study results must be agreed to.

In Applicability 4.1.2 of the CLEAN version of FAC-002-2 Transmission Planner Transmission Owner is shown as 4.1.2. Transmission Planner and Transmission Owner are shown on the same line. They must be separated. In addition, the redlined version of FAC-002-2 shows numbering not deleted that is not shown of the CLEAN version. FAC-002-2 Clean and redlined versions should have been compared prior to posting because the aforementioned discrepancies lead one to believe that the posted CLEAN and redlined documents did not use the same “base” document. FAC-002-2 CLEAN and redlined versions should be compared to check for additional discrepancies.

In Part 1.1 the wording “the interconnected systems” should not be replaced by “affected systems”.

In Part 1.1 the Transmission Planner is required to evaluate the reliability impact of the Facility. In Part 1.3 the TP is conducting steady state, dynamic, and short circuit studies as needed. These are the same activities. What other actions were envisioned by the SDT that the TP would do to evaluate reliability?

Part 1.2 should be removed. The existing words present a compliance difficulty and do not capture the purpose of the Standard. Applicable NERC Reliability Standards will require the TP to explain the selection of applicable NERC requirements and what applicability is being measured against. For example, for a new 345 kV line is the TP evaluating compliance to FAC-003? The TP would not evaluate compliance to the TO Facility Interconnection requirement since many of the requirements are outside the TP function, such as the inspection requirement. The TP is evaluating compliance of a Facility to the performance criteria in TPL-001-4. In addition, NERC reliability standard requirements cannot make regional and Transmission Owner planning criteria mandatory.
In Part 1.4 the first sentence stipulates collecting documentation that evidences the prior Parts. Part 1.4 should be deleted. This is a documentation requirement that could be placed in the measures. It is not important to require the documentation of the alternatives considered, since the purpose of the Standard is to evaluate the impact of the selected solution; all solutions should have no adverse impact.

In Requirements R2, R3 the wording “coordinate and” should be removed. How does an entity comply with “coordinate“?

R1.1, et al., should be identified as “Parts” in the standard.

The SDT should determine whether or not the requirements conflict or are redundant from regulatory requirements that exist under FERC’s Pro Forma Generator Interconnection Procedures. For example, under the proposed R2, “Each Generator Owner seeking to interconnect generation Facilities shall coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator, including but not limited to the provision of data as described in R1.1-R1.3." FERC’s Pro Forma Generator Interconnection Procedures already specify all requirements that a Generator Owner must meet to get a new or materially modified unit interconnected to the transmission system. It is also unclear from a chronological perspective if these requirements need to be met and be demonstrable for every proposed facility that gets included in a planning study, or is only applicable for those that have reached a definite stage of construction. By the time entities commit to construction of facilities, the aforementioned steps of coordination and studies will have already been met making these requirements moot.

Suggest the following to improve clarity and consistency in the document:

- In the Applicability Section, do not see the need to include both a Generator Owner (Part 4.1.4) and Applicable Generator Owner (Part 4.1.5). “Applicable” can be added as a descriptor for Generator Owner, and its definition explained in the appropriate Rationale Box. If kept, Applicable Generator Owner used in the standard should be capitalized. “Applicable” should be removed from the wording of R4.
- Requirements R2-R4 basically state the same things. The entity has to “….coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator….”. This would be acceptable if, for example, R2 applied only to GO, R3 applied only to TO and R4 applied only to DP. But, to apply R2 only to GO and then to also include GO in R4 is confusing and appears to create double jeopardy. It can be similarly said of R3 which includes TO, as does R4. It appears that the SDT is attempting to distinguish between coordinating and cooperating relative to the interconnection of the facility owned by the entity (R2 and R3) and coordinating and cooperating on the actual study or studies performed (R4). However, if this is the intent, given the almost
identical wording in all of the cited requirements, suggest revising the requirements to more clearly distinguish the differences. The Rationale Boxes for Requirements R2 through R4 attempt to clarify the requirements, but the wording of the requirements need further clarification.

- Parts 1.1-1.3 are cited in Requirements R2-R4. These are not requirements (they are Parts) and should be rewritten in R2 to read as Parts 1.1 - 1.3. R3 and R4 should also be rewritten to incorporate this change.

- The inclusion of the phrase “materially modified” should not be used in this standard (including the Guidelines and Technical Basis). A modification (whether material or not) can only occur on an existing facility. The SAR clearly indicates its application to new facilities that might become interconnected (if ultimately constructed). In the Guidelines and Technical Basis Section the SDT did not provide any justification or resolution for a determination of materiality. Alternatively, should the SDT choose not to remove the phrase “materially modified”, then the phrase needs to be explained in the Rationale Box. We propose that “material” means a modification which would have a reliability risk to the BES if not studied.

Revise Applicability 4.1.6.1 (remove “to on”) to read:

4.1.6.1 Generator Owner with an executed Agreement to conduct a study to determine the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the interconnected Transmission System.

Requirements R3 and R4 should be revised to capture the allowance in Part 1.4 for studies to be conducted by a single entity. As written R3 says TO shall coordinate and cooperate. We believe the correct idea to be that the TO will coordinate when the TP doesn’t provide the entire study result. The data provision in R3 and R4 should be its own requirement, i.e. the TO shall provide data, upon request, to the TP to support R1.

3. Do you agree with the timeline for implementation as proposed in the Implementation Plan?

☐ Yes
☐ No

Comments: