

**Individual or group. (50 Responses)**

**Name (33 Responses)**

**Organization (33 Responses)**

**Group Name (17 Responses)**

**Lead Contact (17 Responses)**

**Contact Organization (17 Responses)**

**IF YOU WISH TO EXPRESS SUPPORT FOR ANOTHER ENTITY'S COMMENTS WITHOUT ENTERING ANY ADDITIONAL COMMENTS, YOU MAY DO SO HERE. (5 Responses)**

**Comments (50 Responses)**

**Question 1 (41 Responses)**

**Question 1 Comments (45 Responses)**

**Question 2 (43 Responses)**

**Question 2 Comments (45 Responses)**

**Question 3 (41 Responses)**

**Question 3 Comments (45 Responses)**

Group
Dominion
Louis Slade
NERC Compliance Policy
No
While Dominion agrees with the revisions from a technical perspective, Dominion has the following suggestions which Dominion believe will improve clarity and increase consistency. • Given the SDT changed the title to use the word “Interconnection” instead of “Connection”, Dominion suggest the Purpose be modified similarly. Adoption of this suggestion will also improve consistency with Requirement 1. • In Applicability Section 4.1.2.1; suggest removing the ‘to’ in ‘conduct a study to’ • Requirement R2 – Suggest deleting “full” in the first sentence to be consistent with Applicability Section 4.1.2.1. • Requirement R3.1 and R3.2 – Dominion does not agree with inclusion of the phrase “materially modified” in this standard. In our view 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 (maybe proposed would be a better word) that might become interconnected (if ultimately constructed). Dominion suggests removing the last sentence from the Application Guidelines section of the document. It is Dominion’s position that the Transmission Owner and applicable Generator Owner only needs to considered the items above this 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.
No

While Dominion agrees with the revisions from a technical perspective, Dominion has the following suggestions which Dominion believe will improve clarity and increase consistency. • Do not see the need to include both Generator Owner (4.1.5) and Applicable Generator Owner (4.1.6). If both are necessary, then the requirements need to be revised to indicate which apply to GO in 4.1.5 and which apply to GO in 4.1.6. • Requirements 2-4 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. Similar can be 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, given the almost identical wording in all of the cited requirements, if this is the intent, Dominion suggests revising the requirements to more clearly distinguish the differences. • As mentioned in Requirements R2-R4, R1.1 - R1.3, these are not requirements (they are subparts) and should be rewritten in R2 to read as R1 subparts 1.1 - 1.3. R3 and R4 should also be rewritten to incorporate this change. • Dominion does not agree with inclusion of the phrase “materially modified” in this standard. In our view 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 (maybe proposed would be a better word) that might become interconnected (if ultimately constructed).

Yes

Group

Northeast Power Coordinating Council

Guy Zito

Northeast Power Coordinating Council

No

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.”

No

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.

Yes

Individual

Greg Froehling

Rayburn Country Electric Cooperative

No

Actually Yes and No, I think the changes are moving in a positive direction however I am a proponent of combining the standards into one Facility Interconnection standard. Since they do interact I think it would be a move for efficiency. Also review the, Purpose: To ensure that Transmission Owners and applicable Generator Owners document and make Facility connection requirements available so that Facilities seeking interconnection will have the information necessary for considering and pursuing that interconnection Change the term Facilities to facilities to capture potential non BES interconnections. For SDT consideration: How are privately or cooperative owned (non-OATT) transmission lines addressed when the only interconnections that will allowed are those of the current owner? Is this a special case that can be addressed in the Guidelines and Technical Basis?” for future compliance reference.

No

Proposed requirement: Purpose: To evaluate the impact of interconnecting new or materially modified Facilities on the Bulk Electric System by conducting and coordinating studies. R3. Each Transmission Owner, each Distribution Provider, and each Load-Serving Entity seeking to interconnect transmission Facilities or electricity end-user 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. Consider the use of the defined term Facility. For example, connecting a non- BES facility (i.e. a 138/25 kV transformer) to a BES transmission line. Per the requirement, I would not have to perform any studies since by definition I am not connecting a “Facility”. I am connecting a facility however. FACILITY A set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a generator, a shunt compensator, transformer, etc.) Suggested purpose and requirement:

Purpose: To evaluate the impact of interconnecting new or materially modified facilities on the Bulk Electric System by conducting and coordinating studies. R3 Each Transmission Owner, each Distribution Provider, and each Load-Serving Entity seeking to add new or materially modified interconnections to BES transmission 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

Yes

Group

NCPA Generation

Steve Hill

NCPA

No

The Purpose is narrowed and more focused. Although emphasis is placed on conducting the necessary studies to assess the impacts as the requirement, additional requirements may include paying for the studies, advance funding, ensuring availability of additional funding and resources, need for an advance notice to minimize business interruption, etc. With this purpose in mind, the purpose in version2 is not clear. Perhaps more clarified statement of the Purpose may be: To ensure continuing reliability of the interconnection, transmission systems owned by Transmission Owners and/or Generator Owners, Generator Operators shall document and make available the detailed requirements to a third party seeking permission to connect, increase or otherwise alter the impact to their systems. The definition of Applicable Generator Owner - AGO (4.2) is narrowed compared to the version 1. Under version 1, the GO became the AGO when the GO had an executed agreement from an entity seeking permission to connect to the GO's existing facility. Version2 definition is narrowed down to having an executed agreement to conduct reliability impact study only. It is not explicitly stated that the Applicable GO will initiate the study with the PC or TP to perform the study. Is the Applicable GO also responsible for entering into an agreement with the TP or PC to actually perform the study in addition to documenting the Facility interconnection requirements and to make them available? This is not addressed in the standard and causes confusion. It is not clear why the SDT singled out the study and left out other elements that may be identified in the GO's Interconnection Agreement that the entity may be required to execute. Within these requirements, study should be a major element but not the only as described above in the Comments section of Purpose above. In Section 5 Background the objective of FAC-001 is narrated. SDT's selection of the phrase 'Facilities seeking interconnection' by the SDT, instead of "entities" is explained. With that in mind and maintaining the title "Facilities seeking interconnection", 4.1.2.1 may be better clarified as follows: Sub-Section 4.1.2.1: Applicable Generator Owner is the Generator Owner who has received an executed agreement to study reliability impact on its transmission system from third party Facilities seeking interconnection to the Generator Owner's transmission system.

No
Proposed Purpose Modification: To evaluate the the reliability impact of interconnecting new or materially modified Facilities on the Bulk Electirc System based on the results of the Faciity Interconnection Studies Proposed Modification to R2: Each Applicable Generator Owner having executed an agreement from Faciliites seeking interconnection (as defined in FAC-001-2) shall coordinate and cooperate with the studies identified under R1 with its transmission Panner or the Planning Coordinator including but not limited to the scope outlined under R1 above. It would be helpful to describe the responsibility of who initiates and consummates the agreement for the interconnection study with the PC or TP. This would help clarify the comments made for FAC-001 as well.
Yes
Individual
Dan Roethemeyer
Dynergy
Yes
No
While we agree with the overall goal of FAC-002-2, Dynergy is requesting that the SDT define within the Standard what is considered "material modified generation". In order to provide consistency across the BES it is essential to define this term.
Yes
Group
PacifiCorp
Sandra Shaffer
PacifiCorp
Yes
Possible typos: FAC-001-2 Redline draft -- "connection requirements" should be "interconnection requirements" in the Purpose section. FAC-001-2 Redline draft in section 4.1.2.1 -- Remove the "to" in the first sentence: "...conduct a study to on the reliability..."
Yes
Yes
Group
MRO NERC Standards Review Forum

Joe DePoorter

Madison Gas & Electric

No

Section 4.1.2.1: The word “to” in “Generator Owner with an executed Agreement to conduct a study to on the ... ” should be removed. Section 4.1.2.1: By removing the word “evaluate” and replace it with “... to conduct a study on the reliability impact...” removes the TO’s ability to evaluate and reason if study analysis is needed. This wording changes the meaning to every application would need to be studied. R1.1.3: End-user facilities are included in Requirement 1 to have Facility interconnection requirements available – but there is not a requirement dealing with End Use Facilities like there is with Generation Facilities (R1.1.1) and Transmission Facilities (R1.1.2). R2: Again “evaluate” was removed and replaced with “...conduct a study...”. This forces the TO to complete a study for each new or modified interconnection – removes the ability for the TO use reason and judgment as to the impact.

No

R1 & R4. As written “Each TP AND each PC shall...” both conduct studies, yet in R2 & R3 applicable entities shall “cooperate with it TP OR PC...”. Recommend that in R1 & R4 the “and” be replaced with “or”. This will allow a single study to be accomplished where there are multiple TPs or PCs that have the responsibility for reviewing TOs or GOs interconnection requests. R1: Clarify that Transmission Planners and Planning Coordinators only conduct studies (assessments) of interconnections that may affect their respective area with addition of wording like, “. . . or electric end-user Facilities that may affect their respective area.” R1.2: Clarify and improve R1.2 to require the consideration of any applicable planning criteria or interconnection requirements (e.g. regional, TO, GO, DP) and allow the affected entities to decide which of conflicting planning criteria or interconnection requirements to be applicable for the facility interconnection assessment. Possible wording could be, “. . . applicable NERC Reliability Standard, applicable planning criteria, and applicable Facility interconnection requirements”. R1.4: Clarify that “alternatives considered” refers to the required consideration of alternatives for any necessary system modifications that would be necessary to avoid any adverse BES reliability that would be introduced by placing the facility interconnection in service, not a requirement to consideration alternative interconnect options to the proposed facility interconnection. [If a better facility interconnection is discovered and selected, then the FAC-002-2 requirements would simply apply to the alternate facility interconnection.] Potential clarification wording could be “alternatives considered for any system modifications needed to accommodate the facility interconnection”. A.5, R1, R1.1: Clarify the meaning of the expression, “materially modified”. The expression can be interpreted to include the partial or complete retirement of any generation, transmission, or distribution interconnection facilities. We accept this interpretation that the retirement of interconnection facilities may impact BES reliability in the planning horizon as much as interconnection facility additions or changes. If the inclusion of the retirement aspect is to be intended, then clarification wording could be added to the A.5 Background section like, “Materially modified Facilities includes either additions to or

removals from exiting interconnection facilities”. Otherwise, the clarification wording could be added to the A.5 Background section would be, “Materially modified Facilities only includes additions to, not removals from, exiting interconnection facilities.” Title, A.3, A.5, R1, R1.4, R2, R3, R4: Reconsider the use of the term “assessment” in the standard, rather than only in R1.4. The NERC Glossary of Terms defines the term, Planning Assessment, as “Documented evaluation of future Transmission system performance and Corrective Action Plans to remedy identified deficiencies.” And the TPL standards describe system planning performance requirements in the framework of assessments that are supported by studies and analyses. In our industry the term, “studies” implies the performance of simulations, but not all interconnection evaluations, particularly electricity end-user interconnections, need study or analysis. Simple information can be sufficient to make certain assessments. Since the purpose of FAC-002-2 appears to be the performance of Planning Assessments on proposed Facility Interconnections, perhaps the wording of the title should be changed to something like, “Facility Interconnection Planning Assessments” or “Facility Interconnection Planning Performance Requirements” and the term “assessments” should be used instead of “studies” in the standard, except for R1.3.

Yes

Individual

Kayleigh Wilkerson

Lincoln Electric System

Yes

In Applicability Section 4.1.2.1, please delete the unnecessary “to”. The statement should read “4.1.2.1 Generator Owner with an executed Agreement to conduct a study on the reliability impact of...” Within section A.5 “Background”, recommend removing the reference to the specific reliability principle and instead reword the last sentence in A.5 as follows: “This objective supports the reliability principle that information necessary for planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.” If the above change cannot be made, LES suggests that at a minimum the drafting team include a footnote to reference the document of origin for “reliability principle 3”. Although language from the principle is provided, incorporating a specific document reference would be beneficial for future reference.

No

Although appreciative of the drafting team’s efforts in revising FAC-002, LES believes the proposed standard lacks sufficient clarity regarding the responsibilities of applicable entities and introduces unnecessary confusion with the addition of “Applicable Generator Owner” (4.1.5.1) as a functional entity. In particular, LES is confused why the drafting team chose to create separate requirements within the standard based on whether an entity seeks to interconnect a Facility versus if an entity receives a request to interconnect to a Facility. Regardless of where or how the possible interconnection originates, LES believes the onus is

on the registered entity with the impacted Facility (GO, TO, LSE, or DP) to coordinate and cooperate on studies for its Facilities with its Transmission Planner and Planning Coordinator. In consideration of the above comments, LES recommends the drafting team consolidate Requirements R2, R3 and R4 and instead state the following as a single requirement: “Each Generator Owner, Transmission Owner, Load-Serving Entity and Distribution Provider shall coordinate and cooperate with its Transmission Planner or Planning Coordinator on studies regarding requested interconnections to its transmission, generation, or electricity end-user Facilities, including but not limited to the provision of data as described in R1.1-R1.3.” Additionally, issues identified in the comments for FAC-001-2 apply to FAC-002-2 as well.

Group

FirstEnergy

Cindy Stewart

FirstEnergy Corporation

Yes

Yes

Yes

FirstEnergy does anticipate some procedural revisions for which one year is appreciated.

Individual

Jo-Anne Ross

Manitoba Hydro

No

On page 5, there is both a stated Purpose and Background. The first refers to documenting and making “Facility connection requirements available ....” The second refers to documenting “Facility interconnection requirements”. For consistency, both words should be the same. FAC-001-2 should address any specialized requirements resulting from the inclusion of dispersed power producing resources in the latest definition of BES (Inclusion I4). For example, areas such as aggregated modeling or specialized reactive power requirements or overfrequency ride through requirements, for example, should be considered for documentation if there are different requirements for traditional synchronous generators vs dispersed generation like wind and solar. The SDT has included the following requirement in the Guideline and Technical Basis, “The Transmission Owner’s or applicable Generator Owner’s Facility interconnection requirements should ensure that by the time of interconnection, the interconnecting Facility will be able to comply with all applicable NERC Reliability Standards.” If this is a true requirement it should be moved into the standard with an associated measure.

No

On page 5, studies must now include “Evaluation of compliance with applicable NERC Reliability Standards ....” Whether there is compliance is a legal determination, and for our particular entity, one that can only be made by the Public Utilities Board. A study could perhaps look at the interconnection’s “capability” of becoming compliant, but not compliance itself. The requirement is quite broad and subject to interpretation on the word “applicable”. The SDT should clarify applicable or limit scope to system performance, for example. Applicable Generator Owner is only used in R4 in FAC-002-2 regarding coordinating and cooperating. This is a good thing from our point of view but it doesn’t align with the changes made to FAC-001-2 and doesn’t imply that the applicable GO will be performing studies like the TP/PC are in R1.

Yes

Individual

David Jendras

Ameren

No

(1) In order to be consistent with the Draft FAC-002-2, FAC-002-1 should include the PC and TP as Functional Entities. (2) We request requirement R1.1 be reworded to read: “1.1 New and materially modified generation Facilities.” Realize that the GO is not allowed to have the “wide area view” of the interconnected transmission system the GO is therefore unable to determine whether any potential new generation, or modified existing generation Facilities, will have an impact on the BES. Therefore, we believe that the TO (who does have the wide area view of the interconnected transmission system), or the appropriate TP or PC, must provide the GO with technical guidance on what constitutes new generation or materially modified generation. In fact, this is the only way an existing GO can comply with R3.1 and R3.2 for a third party GO that requests an interconnection. (3) We request the first paragraph of the Guidelines and Technical Basis section be changed to recognize the need for the TO, TP or PC to specify technical guidance on what constitutes a “material modification” to an existing generation Facility. (4) Finally, we request the last paragraph of the Guidelines and Technical Basis section be reworded as follows: “The Transmission Owner’s or applicable Generator Owner’s Facility interconnection requirements should contain sufficient guidance, as necessary, so the interconnecting generation Facility will be able to comply with all applicable NERC Reliability Standards.” The current draft wording seems to imply a liability that the applicable GO must ensure that the new third party interconnection facilities will comply with all applicable NERC Standards.

No

(1) We believe this draft FAC-002-2 should require the TO, TP or TC, as appropriate, provide an applicable GO or GO owning an existing generating Facility, a detailed technical definition, with practical examples, of what constitutes new or materially modified generator Facilities.

Yes
Individual
Michelle D'Antuono
Ingleside Cogeneration LP
Yes
Ingleside Cogeneration LP (ICLP) believes that the revisions to FAC-001 reflect the evolution in standard's development that has taken place over the last year or so. Specifically, a significant amount of overlap with existing PUC regulations related to Facility connection requirements has been removed from R3 – consistent with Paragraph 81. We agree that the guidance section of the standard is the proper place for the detailed elements of a valid interconnection document. In addition, FAC-001 incorporates the risk-based concept by leaving it up to the entity to determine when a “material modification” is made. The previous version of the standard did not address modifications at all – a clear gap in the compliance framework. However, the project team chose not to describe the applicable modifications, which would be arbitrary in Ingleside's view. Instead, well-understood industry norms can be applied without requiring CEA judgment.
Yes
ICLP agrees that splitting Requirement R1 into multiple parts clearly distinguishes the responsibilities of planners and facility owners to interconnection studies. This eliminates any ambiguity in the process – and avoids the possibility of a violation to a missed or improperly executed task that is outside of an entity's control. In addition, ICLP believes that the modifications to FAC-002 are consistent with FAC-001 – which is particularly important in situations where a third party wants to tie into the GO-TO interconnection. Sometimes the Generator Owner can be compelled by the PUC or RTO to allow a third party attachment, which necessitates a follow up agreement to cover costs of studies and so forth. It is important that the third party negotiate the agreement in good faith and not use NERC standards as a means to force compliance. Our reading of both standards indicates that everyone's rights are preserved in the process – a necessary part of well-applied regulatory oversight.
Yes
Individual
Mark Wilson
Independent Electricity System Operator
Yes
No

We agree with most of the revisions. Below are some comments/proposed changes for consideration: a. Applicability Section 4.1: Suggest to add Load-Serving Entity in view of the responsibility assigned to these entities in Requirement R3. b. Applicability Section 4.1.2: Split Transmission Planner and Transmission Owner. c. Applicability Section 4.1.5: Applicable Generator Owners: The word “to” in the part “...a study to on the reliability impact...” should be removed. Also, suggest to combine 4.1.5 with 4.1.5.1 by revising 4.1.5 to: 4.1.5 Generator Owner with an executed Agreement to conduct a study to on 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 systems. d. Requirement R1: We do not believe R1 is needed. The need for the PC and TP to conduct studies to assess reliability impacts of proposed additions/modification by TOs, DPs and GOs is not identified or stipulated in the existing FAC-002-1. While we agree that PC and TP have a role to review and coordinate studies by entities that propose to add new or modify existing Facilities, their role should be to review and concur/approve the proponent’s assessments only. Wrt considering impacts of the proposed additions/modifications, in the PC’s and TP’s periodic assessments to meet the TPL standard requirements, they are already required to consider and include approved and proposed Facility changes in their impacts assessed. Stipulating this requirement in the FAC-012 standard will result in duplicating with the TPL standard. The obligation to assess and demonstrate reliability impact/performance on the affected system(s) should be placed on the proponents themselves, i.e., the TO, GO, LSE, DP, not the PC or TP. We suggest to remove R1 from the standard.

Yes

Individual

David Thorne

Pepco Holdings Inc.

Yes

Yes

Yes

Individual

Amy Casuscelli

Xcel Energy

Yes

In general, we agree with the revisions and believe that work is moving the standard in the proper direction.

Yes
In general, we agree with the revisions to the standard and believe they are moving the standard in the proper direction. Under R1.2, it states “. . .regional and Transmission Owner planning requirements . . .” Typically the Transmission Planner, Planning Coordinator or region would have planning requirements, not the Transmission Owner. For clarity, we believe the words “and Transmission Owner” should be removed from this requirement.
Individual
William H. Chambliss
Virginia State Corporation Commission (member, Operating Committee)
Yes
Note that there is a typo in the "Applicability" part 4.1.2.1, which in part reads "....Agreement to conduct a study TO ON the reliability...." Also, R2 is very awkwardly worded. I believe the clarity could be improved a little by starting the sentence with the words "Within 45 days of...." and moving the current opening words ("Each applicable Generator Owner shall") to follow the new opening clause and be inserted just before the words "document Facility interconnection requirements and make them available on request." Thus, "Within 45 days of full execution of....interconnected Transmission systems, each applicable Generator Owner shall....."
Yes
Yes
Individual
Brett Holland
Kansas City Power & Light
Yes
Yes
No
Individual
Sergio Banuelos
Tri-State Generation and Transmission Association, Inc.
Yes

Tri-State agrees with the revisions, however, we believe the term "materially modified Facility" should be defined. As the standard is currently written, it is hard to interpret what the standard drafting team means by "materially modified Facilities." That is a very broad term being used. There should be more guidance on what qualifies makes a facility "materially modified."

Yes

There are some formatting issues in the Applicability and Background sections. "Load-Serving Entity" should be listed next after Generator Owner and Background should be section 5.

Yes

Group

Colorado Springs Utilities

Kaleb Brimhall

Colorado Springs Utilities

Agree

Southwest Power Pool

Individual

Teresa Czyz

Georgia Transmission Corporation

Yes

For R3, part 3.1, GTC would like to suggest re-wording to the following: "Procedures for coordinating studies with affected entities of the impact of new or materially modified Facilities." For R3, part 3.2, GTC would like to suggest re-wording to the following: "Procedures for notifying those responsible for the reliability of affected system(s) of the impact of new or materially modified Facilities."

Yes

For R1, GTC would like to suggest changing the word "integrating" to "interconnecting". "Each Transmission Planner and each Planning Coordinator shall conduct studies on the reliability impact of interconnecting new or materially modified....." For R1, part 1.2, GTC would like to suggest eliminating the words "Evaluation of": "Compliance with....." For R1, part 1.4, GTC would like to suggest the following: "Documentation of study assumptions, system performance, alternatives considered, and jointly coordinated recommendations. While these studies may be performed independently, the results shall be evaluated and coordinated with the affected entities." For R4, GTC would like to suggest noting specifically that it is a "third party" interconnection and adding the DP and LSE as they could also have a third party request: Each Transmission Owner, each Distribution Provider, each Load Serving Entity, and each applicable Generator Owner shall coordinate and cooperate with its Transmission Planner or Planning Coordinator on studies regarding third party requested

interconnections to its Facilities, including but not limited to the provision of data as described in R1.1-R1.3.

Yes

Individual

Thomas Foltz

American Electric Power

No

Regarding the references to facilities which are “materially modified”, and the documentation needed to support one’s technical rationale - would such references be pre-written and establish how, in general, they are to be applied in future decision making? Or instead, would this documentation be written on a case-by-case basis for providing justification on the decision that was made in each specific instance? Please provide clarification.

No

AEP objects to the text “coordinate and cooperate” as included in Requirements R2, R3, and R4, and “coordinate” in Requirement 1.4. Such verbiage is very subject to interpretation, and would be inconsistently applied in audits. AEP suggests replacing these words and phrases with more descriptive text on what action(s) is expected. Although AEP supports the overall efforts of the drafting team in revising FAC-001 and FAC-002, we strongly disagree with any inclusion of the words “coordinate” or “cooperate” and do not foresee voting in the affirmative on this standard as long as those words remain. Regarding the references to facilities which are “materially modified”, and the documentation needed to support one’s technical rationale - would such references be pre-written and establish how, in general, they are to be applied in future decision making? Or instead, would this documentation be written on a case-by-case basis for providing justification on the decision that was made in each specific instance? Please provide clarification.

Yes

Individual

Scott McGough

Georgia System Operations Corporation

Agree

Georgia Transmission Corporation

Group

DTE Electric

Kathleen Black

NERC Training & Standards Development

DTE's Distribution Operations (DO) does not own transmission or generation, however we operate generation facilities. For this reason , DO has not responded to FAX-001 in the past.

DTE's Operational & Planning Engineering recommends changing all instances of "Planning Coordinator" to "Transmission Planning Coordinator" for needed clarity.

Yes

Group

Tennessee Valley Authority

Dennis Chastain

Tennessee Valley Authority

Yes

We suggest the purpose statement be further modified to read as follows: "To ensure that Transmission Owners and applicable Generator Owners document and make their Facility interconnection requirements available so that entities seeking to establish or materially modify a Facility interconnection will have the information necessary to pursue it". We disagree with the drafting team's logic for using "Facilities" rather than "entities" in describing the party seeking to interconnect (used in section A.3 and A.5). The section A.4, 4.1.2.1 edit should be either "...conduct a study to evaluate the reliability impact..." or "conduct a study on the reliability impact...". For requirement R1, making Facility interconnection requirements "available upon request" invokes a degree of responsibility on the entity seeking to interconnect to know that the Transmission Owner has such requirements, and to ask for them. The drafting team should consider replacing "and make them available upon request" with "and provide them to an entity seeking to interconnect". We believe the proposed revision may lack clarity in instances where the Transmission Owner, Transmission Planner and Planning Coordinator are not the same entity. For example, requirement R3 requires the Transmission Owner to address procedures for coordinated studies, presumably to be performed by the Transmission Planner and Planning Coordinator as outlined in FAC-002. There is no requirement for the Transmission Owner to develop its procedures for coordinated studies in conjunction with the Transmission Planner and Planning Coordinator who will be performing those studies.

Yes

The formatting of section A.4 - Applicability, needs work: The TP and TO are listed on the same line, 4.1.2. The LSE is rolled into section A.5 - Background. The section A.4, 4.1.2.1 edit should be either "...conduct a study to evaluate the reliability impact..." or "conduct a study on the reliability impact...". We suggest that the proposed R4 become R1 to better bridge from FAC-001 to FAC-002. The premise to the current R1 is that a Transmission Owner or applicable Generator Owner has been approached by another entity to either establish or modify an interconnection Facility. Requirement R1 requires the Transmission Planner and Planning Coordinator to conduct studies. In instances where these entities are not the same, could it be more appropriate for the Transmission Planner to conduct the studies and have

the Planning Coordinator review the studies; or by mutual agreement have one or the other perform the studies? If the drafting team agrees, we suggest changing the “and” to “and/or”. Also, for clarity we suggest the words “within its planning area” be added at the end of the first sentence. We believe the proposed revision may lack clarity in instances where the Transmission Owner, Transmission Planner and Planning Coordinator are not the same entity. For example, requirements R2 and R3 require entities seeking to interconnect to coordinate and cooperate on studies with the Transmission Planner or Planning Coordinator, presumably after contacting a Transmission Owner. There is no explicit requirement for the Transmission Owner to identify the Transmission Planner or Planning Coordinator that the interconnecting entity needs to work with on the studies. This could be addressed in the FAC-001-2, requirement R3 sub-requirements.

Yes

Individual

Andrew Z. Pusztai

American Transmission Company, LLC

No

ATC requests that the SDT consider the following recommendations to improve and clarify the Standard. a. Section 4.1.2.1: Please delete the second “to” in “Generator Owner with an executed Agreement to conduct a study to (DELETE) on the ... ”. It did not read properly. b. Section 4.1.2.1: Please reconsider leaving the term “evaluate” in this section since replacing it with “... to conduct a study on the reliability impact...” removes the Generator Owners (GO’s) ability to evaluate and determine if a study analysis is needed. The revised wording changes the intent such that every application would need to be studied. c. Sub-requirement R1.1.3 includes End-user facilities” however, there is no requirement dealing with End Use Facilities within the Standard like there is with Generation Facilities (R1.1.1) and Transmission Facilities (R1.1.2). To address this omission, ATC recommends that Requirement R3 be revised as follows: “Each Transmission Owner and each applicable Generator Owner and Distribution Provider shall address .....” d. Section 4.1 (Applicability): Please add Section “4.1.3. Distribution Provider” since they would encompass the requirements for “End User Facilities”. e. Requirement R2: Please reconsider leaving the term “evaluate” in this section since replacing it with “... to conduct a study on the reliability impact...” removes the Generator Owners (GO’s) ability to evaluate and determine if a study analysis is needed. The revised wording changes the intent such that every application would need to be studied, even when study is unnecessary.

No

ATC does not agree with all the revisions. ATC requests that the SDT consider the following recommendations for improvement and clarification of the Standard. a. Applicability Section 4.1.6.1: Please delete the second “to” in “Generator Owner with an executed Agreement to conduct a study to (DELETE) on the ... ”. It did not read properly. b. Requirement R1: Please clarify that Transmission Planners and Planning Coordinators only conduct studies

(assessments) of interconnections that may affect their respective area with the addition of wording like, “. . . or electric end-user Facilities that may affect their respective area.” c. Requirement R1: Please resolve the “and” versus “or” terminology between R1 and Requirements R2-R3-R4. R1 includes an “and” that obligates Transmission Planners and Planning Coordinators to study (assess) the same facility interconnection (duplicative efforts). However, Requirements R2-R3-R4 allows the GO, TO, and DP to coordinate with only the TP or the PC. ATC recommends the wording in R1 be changed from “and” to “or”. The use of “or” would allow one TP or PC to meet the requirement for other TPs or PCs, but would not prevent other TPs or PCs performing studies independently or jointly if desired. d. Requirement R1.1: Please clarify the meaning of “impact of the new or materially modified Facilities on affected system(s)”. These words can be interpreted in at least two ways – (1) impact of integrating Facilities between two entities or (2) impact of integrating Facilities within a TO’s system (e.g. add 138 kV line, add 345/138 kV transformer, add 138/69 kV transformer, add 138 kV capacitor bank), as well as Facilities between different entities. For Interpretation 1, possible wording could be, “impact of the new or materially modified Facilities between different entities on any affected system(s).” For Interpretation 2, possible wording could be, “impact of the new or materially modified Facilities within an entity’s system, or between different entities’ systems, on any affected system(s).” e. Requirement R1.2: Please clarify and improve R1.2 to require the consideration of any applicable planning criteria or interconnection requirements (e.g. regional, TO, GO, DP) and allow the affected entities to decide which of conflicting planning criteria or interconnection requirements to be applicable for the facility interconnection assessment. Possible improvement of the wording is as follows, “. . . applicable NERC Reliability Standard, applicable planning criteria, and applicable Facility interconnection requirements”. f. Requirement R1.4: Please clarify that “alternatives considered” refers to the required consideration of alternatives for any necessary system modifications that would be necessary to avoid any adverse BES reliability. The requirement should only apply to needed corrective actions introduced by placing the facility interconnection in service, not a requirement to consider alternative interconnect options to the proposed facility interconnection. [If a better facility interconnection is discovered and selected, then the FAC-002-2 requirements would simply apply to the alternate facility interconnection.] Potential clarification wording could be “alternatives considered for any system modifications needed to accommodate the facility interconnection”. g. Section A.5 and Requirements R1, R1.1: Please clarify the meaning of the expression, “materially modified”. This expression may also be interpreted to include the partial or complete retirement of any generation, transmission, or distribution interconnection facilities. ATC believes that the retirement of interconnection facility may impact BES reliability in the planning horizon as much as interconnection facility additions or changes. If the inclusion of the retirement aspect is intended, then clarification wording should be added to Section A.5 Background. Recommended wording is as follows: “Materially modified Facilities include either additions and/or removals from exiting interconnection facilities”. Otherwise, you may clarify Section A.5 by inserting the following: “Materially modified Facilities only includes additions to, not removals from, exiting interconnection facilities.” h. Standard’s Title plus Sections A.3, A.5 and Requirements R1, R1.4, R2, R3, R4:

Please consider the use of the term “assessment” throughout the standard rather than referencing and using the term “studies”, except for R1.3. The NERC Glossary of Terms defines the term, Planning Assessment, as “Documented evaluation of future Transmission system performance and Corrective Action Plans to remedy identified deficiencies.” The TPL standards describe system planning performance requirements in the framework of assessments that are supported by studies and analyses, as needed. In the transmission industry the term, “studies” implies the performance of simulations, but not all interconnection evaluations, particularly electricity end-user interconnections, need study or analysis. The consideration of simple information can be sufficient for some assessments. Since the purpose of FAC-002-2 appears to be the performance of Planning Assessments on proposed Facility Interconnections, we recommend that wording of the title be changed as follows: “Facility Interconnection Planning Assessments” or “Facility Interconnection Planning Performance Requirements”, instead of “Facility Interconnection Studies”.

Yes

Group

Duke Energy

Michael Lowman

Duke Energy

Yes

Duke Energy suggests a rewording of Section 4.1.2.1 of the Applicability Section due to an apparent typographical error as follows: “4.1.2.1 Generator Owner with an executed Agreement to conduct a study on 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 systems.”

Yes

Duke Energy suggests a reorganization of the Applicability Section and Background Section due to an apparent clerical error as follows: “4. Applicability: 4.1. Functional Entities: 4.1.1 Planning Coordinator 4.1.2 Transmission Planner 4.1.3 Transmission Owner 4.1.4 Distribution Provider 4.1.5 Generator Owner 4.1.6 Applicable Generator Owner 4.1.6.1 Generator Owner with an executed Agreement to conduct a study to on 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 systems. 4.1.7 Load-Serving Entity 5. Background: The objective of FAC-002 is to ensure that the entities involved in the integration of new or materially modified Facilities conduct and coordinate studies 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.”

Yes
Duke Energy agrees with the proposed Implementation Plan.
Individual
Venona Greaff
Occidental Chemical Corporation
Agree
Ingleside Cogeneration, LP
Individual
Chris Scanlon
Exelon
Yes
Purpose: Consider modifications to the Purpose statement, something like: To ensure Transmission Owners and Generator Owners document and make Facility connection requirements available so that Entities seeking interconnection will have the information necessary for interconnecting facilities to the bulk power system. Substitute "Entities" for "Facilities" because the action, "seeking to interconnect" is being done by an "Entity", not a Facility. Applicability: Consider removing, "Applicable" from "Applicable Generator Owner" in 4.1.2. and add "Applicable to a" in the sub-requirement. The Applicability section is generally limited to Registered Entity functions in the Functional Model and Registry Criteria. The "Applicable Generator" qualification in 4.1.2.1 clarifies the class of Generator Owners the standard is applicable to. 4.1.2. Generator Owner 4.1.2.1 Applicable to a Generator Owner with an executed Agreement to conduct a study to on 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 systems. Requirement: R.1 Propose the SDT change "make them available upon request" to "make them available upon written request".
Yes
Applicability: Formatting problems: 4.1.2. Separate Transmission Planner and Transmission Owner Is the LSE an applicable entity? In which case it should be 4.1.7. Section 5 Background is not formatted properly, separate it from LSE. Requirements: R1.2. elements of a study shall include, "regional and Transmission Owner planning criteria; and Facility interconnection requirements;" Please clarify use of regional. Should this say regional and or TO planning criteria and facility interconnection requirements? There are two other items we would recommend the Standard Drafting Team consider. First, for requirement R3 in the revised draft of FAC-002, we recommend that additional wording be added to allow handling the addition of smaller end-user loads to the transmission system through the normal annual reliability analysis performed by the Planning Authority or Planning Coordinator. We would recommend this for loads smaller than 20 MW. This would clarify that for these smaller end-user loads, it is not necessary for coordination to occur individually for each instance, but rather can be consolidated into the annual reliability analysis. We believe this is the most effective way to handle these smaller end-use additions. Second. We think R1.1 and R1.2 are

redundant and could be combined. See also "Consideration of Issues" document, where it states, " Further, the SDT has proposed deleted (sic) any reference to TPL standards because it is redundant with the FAC-002-2, R1.2 requirement to evaluate compliance with all NERC Reliability Standards. To continue including a separate reference to TPL Reliability Standards is redundant and could lead to double jeopardy." Removing reference to the TPL standards and keeping the "NERC Reliability Standards" reference seems to only partially address the issue identified by the SDT, we question whether a requirement should say evaluate compliance with other applicable Standards.

Yes

Individual

Anthony Jablonski

ReliabilityFirst

No

ReliabilityFirst Abstains and offers the following comments for consideration: 1. Applicability Section 4.1.2.1 – ReliabilityFirst notes there is an inadvertent word "to" in between the words "study" and "on". ReliabilityFirst recommends the following for consideration: "Generator Owner with an executed Agreement to conduct a study on the reliability impact..." 2. Background Section – Within the Background section, there is reference to "objective supports reliability principle 3". For those stakeholders who are unaware of the NERC Reliability Principles, ReliabilityFirst recommends adding a footnote to this language referencing either reliability principle 3 or a link to the NERC Reliability Principles document. 3. Requirement R1 – ReliabilityFirst recommends removing the following language, "update them as needed", because it is non-substantive. With the Transmission Owner documenting their Facility interconnection requirements, they are inherently updating them as well. 4. Requirement R1 – ReliabilityFirst recommends including a timeframe in which the Transmission Owner needs to make the Facility interconnection requirements available following a request. ReliabilityFirst recommends the following for consideration: "Each Transmission Owner shall document Facility interconnection requirements and make them available [within 30 calendar days] upon request." 5. Requirement R2 - ReliabilityFirst recommends clarifying the term "days" (i.e., is it calendar or business days?): "Each applicable Generator Owner shall, within 45 [calendar] days..." 6. Requirement R2 - ReliabilityFirst recommends including a timeframe in which the Generator Owner needs to document Facility interconnection requirements and make them available following a request. ReliabilityFirst recommends the following for consideration: "... document Facility interconnection requirements and make them available [within 30 calendar days] upon request. 7. Requirement R3 Parts 3.1 and 3.2 – ReliabilityFirst believes the terms "coordinated" and "materially" are ambiguous and open the requirement up to unnecessary interpretation. Without further clarity, these terms may lead to unintended compliance complications. ReliabilityFirst recommends removing these terms from Requirement R3, Part 3.1 and 3.2. 8. Requirement R3 – ReliabilityFirst believes several of the removed (i.e.,

prescriptive) sub-parts listed in the currently enforceable FAC-001-1 Requirement R3 should remain in the requirement. ReliabilityFirst believes that the following five items apply to all applicable entities and should be required to be included within the Transmission Owners and Generator Owners Facility interconnection requirements. The remaining deleted sub-parts can be referenced in the Guidelines and Technical Basis section. The five sub-parts that ReliabilityFirst believes should be reinserted within Requirement R3 include: a. 3.1.3. Voltage level and MW and MVAR capacity or demand at point of connection. b. 3.1.5. System protection and coordination. c. 3.1.9. Voltage, Reactive Power, and power factor control. d. 3.1.11. Equipment Ratings. e. 3.1.16. Communications and procedures during normal and emergency operating conditions.

No

ReliabilityFirst Abstains and offers the following comments for consideration: 1. General Comment - ReliabilityFirst believes the term “materially”, which is used throughout the Standard, is ambiguous and opens the requirements up to unnecessary interpretation. Without further clarity and definition, this term may lead to unintended compliance complications. ReliabilityFirst recommends removing this term from the entire standard. 2. Requirement R1, Part 1.2 – ReliabilityFirst believes the term “compliance” in Requirement R1, Part 1.2 is a misapplication of this term. The term “compliance” has a specific connotation in the NERC environment. Furthermore, there is no “compliance” related to regional and Transmission Owner planning criteria and Facility interconnection requirements. ReliabilityFirst believes the term “adherence” is more appropriate in this circumstance. ReliabilityFirst recommends the following for consideration: “Evaluation of adherence to applicable NERC Reliability Standards; regional and Transmission Owner planning criteria; and Facility interconnection requirements”. 3. Requirement R2 – ReliabilityFirst believes the term “coordinate and cooperate” is ambiguous and may lead to unintended compliance implications. ReliabilityFirst also believes the language, “including but not limited to the provision of data as described in R1.1-R1.3”, is not needed and adds little value because it simply restates the language in the Requirement R1 sub-parts. ReliabilityFirst suggests the following for consideration: “Each Generator Owner seeking to interconnect generation Facilities shall [jointly participate in] studies with its Transmission Planner or Planning Coordinator.” 4. Requirement R3 - ReliabilityFirst believes the term “coordinate and cooperate” is ambiguous and may lead to unintended compliance implications. ReliabilityFirst also believes the language “including but not limited to the provision of data as described in R1.1-R1.3” is not needed and adds little value because it simply restates the language in the Requirement R1 sub-parts. ReliabilityFirst suggests the following for consideration: “Each Transmission Owner, each Distribution Provider, and each Load-Serving Entity seeking to interconnect transmission Facilities or electricity end-user Facilities shall [jointly participate in] studies with its Transmission Planner or Planning Coordinator” 5. Requirement R4 - ReliabilityFirst believes the term “coordinate and cooperate” is ambiguous and may lead to unintended compliance implications. ReliabilityFirst also believes the language “including but not limited to the provision of data as described in R1.1-R1.3” is not needed and adds little value because it simply restates the language in the Requirement R1 sub-parts. ReliabilityFirst suggests the following for consideration: “Each Transmission Owner

and each applicable Generator Owner shall [jointly participate] with its Transmission Planner or Planning Coordinator on studies regarding requested interconnections to its Facilities.” 6. VSLs for Requirement R2, R3 and R4 – There are inconsistencies between the language in Requirement R2, R3 and R4 and the language in the corresponding VSLs that needs to be remedied. For example, Requirement R2 states “the provision of data as described in R1.1-R1.3.” while the VSL states “as described in one of the parts in R.1-R1.4.”

Individual

Tammy Porter

Oncor Electric Delivery

Yes

Yes

Yes

Individual

Marc Dubord

Hydro Quebec production

Agree

NPCC

Group

Florida Municipal Power Agency

Frank Gaffney

Florida Municipal Power Agency

No

The scope of this standard could be significantly narrowed or even totally eliminated. FAC 001-2 essentially remains as an administrative standard that is not a results-based standard, i.e., it requires entities to have criteria, but does not specify that criteria, making it administrative in nature. Additionally, FAC 001-2 applicability to new generator interconnections is redundant to existing FERC regulations such as the LGIA and LGIP. New end user interconnections to the transmission system may be a jurisdictional issue with state regulators and is certainly already addressed by various retail tariff or market rules. What is not necessarily covered by existing regulations are new transmission interconnections (e.g., merchant) but will in part be addressed by Order 1000, and such criteria is certainly addressed in interconnection agreements. A policy issue that must be evaluated for this and other NERC reliability standards is the overarching approach that NERC is taking with regards to existing regulations. Note that the language provided in the Consideration of Issues and

Directive paper (Page 3) completely dismisses existing regulations. The SDT points out that regardless of what is covered in a tariff, requirements for interconnecting new Facilities still need to be addressed in NERC's Reliability Standards. The requirement for Open Access Transmission Tariffs varies from region to region. FERC handles market-related documents like tariffs differently from reliability-related documents like standards, and reliability standards should not rely upon market-related documents to address reliability issues.(emphasis added) And additionally, from page 6 of the same NERC document, in response to Paragraph 81 recommendations to eliminate R1 and R2, "Reciprocity" requirements are not recognized or given any consideration: Although Facility connection requirements for public utilities are typically covered in Open Access Transmission Tariffs (OATTs) under Sections 205 and 206 of the Federal Power Act, this leaves out electric utilities such as municipalities, cooperatives, and federal entities (e.g., the Bonneville Power Administration and the Tennessee Valley Authority), which are addressed under Section 215 of the Federal Power Act. OATTs also would not apply to non-jurisdictional entities that fall in NERC's footprint (e.g., Canadian entities). Ultimately, the SDT agreed that Facility interconnection requirements are necessary for reliability and should continue to be explicitly addressed in NERC standards. These generic policy matters must be addressed; otherwise, the body of NERC standards will continue to grow exponentially with redundant administrative requirements which are not results-based. A discussion could begin with the Standards Committee regarding whether existing regulations can be completely dismissed when developing reliability standards. This generic guidance will be helpful on many fronts. If the SDT does not agree that FAC-001 can be retired, as recommended by the P81 effort, then TOs ought to be treated as GOs are; that is, most TOs will have the necessary requirements documented as part of their tariffs, including large Section 205 non-jurisdictional entities. The entities that may not are those that do not have tariffs because they are small non-jurisdictional entities where interconnection requests will be very infrequent, similar to interconnection requests to GOs. As such, if the choice is to not retire P81, then all applicable entities ought to only have to produce interconnection criteria in accordance with this standard if the entity receives such a request.

No

FMPA objects to referring to "applicable Reliability Standard in R1 bullet 1.2. Applicable to whom? The standards applicable to the PC/TP, the GO/GOP/TO/TOP, or both? We presume the intent is applicable to the PC/TP and that the PC/TP is not to evaluate the ability of a GO/GOP or interconnecting TO/TOP to meet standards applicable to them (which is specifically prohibited by Order 1000). If the intent is all standards applicable to the PC/TP, does that mean that impacts to SOLs and IROLs need to be evaluated? Do extreme contingencies need to be studied in the TPL standards? Do we need to study the impact of changes on losses on load forecasts? Do we have to reevaluate lines below 200 kV for compliance with PRC-023? If the intent is that the PC /TP has sole discretion as to what they believe is applicable, does that mean they can only study single contingencies and not N-2? In other words "applicable" is too ambiguous and FMPA recommends retaining the intent of FAC-003 to TPL-001-4 P1 through P7, or stated differently, TPL standards for non-extreme events. R2, R3 and R4 are administrative in nature, duplicative with other regulations (e.g.,

pro forma OATT), duplicative with other standards (e.g., MOD-010. MOD-012) and is not needed.

Yes

Individual

David Kiguel

David Kiguel

Yes

Clarification is suggested to indicate that reference to end-user Facilities in R1 (1.3) includes large wholesale single customer interconnections as well as Distribution Provider system interconnections.

Yes

Yes

Individual

Scott Hoggatt

Wisconsin Electric

Yes

Our only concern with the new revised standard is that the term “Applicable Generator Owner” used in requirement R2 needs to be more clearly defined. We recommend modifying the definition of the term (or in some other place if that would be more appropriate) to include example(s) of where/how this might apply; e.g. “... Applicable GOs are those whose generator interconnections to the transmission system have been deemed ‘Transmission Elements’ and who have 3rd parties seeking to interconnect to those Transmission Elements. In these situations, these GOs take on the responsibility normally assigned to the TOs to ensure these new facilities meet all the interconnection requirements specified by the NERC standards.”

Yes

- Splitting the current R1 into 3 separate requirements adds clarity to the actual duties and responsibilities associated with interconnecting new Facilities.
- Deleting R2 due to paragraph 81 considerations is also very appropriate.
- Our only concern with the new revised standard is that the term “Applicable Generator Owner” used in the new requirement R4 needs to be more clearly defined. We recommend modifying the definition of the term (or in some other place if that would be more appropriate) to include example(s) of where/how this might apply; e.g. “... Applicable GOs are those whose generator interconnections to the transmission system have been deemed ‘Transmission Elements’ and who have 3rd parties seeking to interconnect to those Transmission Elements. In these

situations, these GOs take on the responsibility normally assigned to the TOs to ensure these new facilities meet all the interconnection requirements specified by the NERC standards.”

Yes

Individual

Mitch Colburn

Idaho Power Company

No

No, adding the requirement to assess "modified" facilities seems ambiguous to me. Is changing a transmission structure or replacing a breaker considered a modification? We would not study such replacements. "Upgrades" seems to be a more appropriate term, but this term could still be construed as ambiguous. R5- "Planning Authority" should be modified to "Planning Coordinator," consistent with Applicability section. I do agree that separating R1 into R1-R4 seems reasonable and a cleaner approach to compliance.

Yes

Group

Southern Company: Southern Company Services, Inc.; Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing

Pamela Hunter

Southern Company Operations Compliance

Yes

FAC-001 should reference the Bulk Electric System in the Purpose as FAC-002 does. To ensure that Transmission Owners and applicable Generator Owners document and make Facility connection requirements available so that Facilities seeking interconnection to the Bulk Electric System will have the information necessary for considering and pursuing that interconnection.

Yes

a. R1.2. Remove reference to compliance with NERC Reliability Standards and regional and Transmission Owner Planning criteria: Should read “Evaluation of the reliability impacts consistent with the applicable Facility Interconnection Requirements.” Reasoning: NERC Reliability Standards are not applicable to the interconnection, yet. Once service is rendered or interconnection made, then there is a firm obligation for which they apply the NERC standards. Also, “NERC Reliability Standards” is too broad and open ended. b. Remove ‘cooperate’ reference in several locations where it states “coordinate and cooperate ...”. Reasoning: Cooperate is redundant since there is already a requirement to

“coordinate”(coordinate implies cooperation). c. R1. Add a requirement for the Transmission Owner and/or Transmission Planner to share interconnection study results and generator’s commitment to proceed with the Reliability Coordinator. Also include RC as applicable entity. Reasoning: There is currently a reliability gap in coordination of studies between the TP/TO and the RC for interconnection requests. Specifically, in areas where there are several TO’s and one RC, the results of an interconnection study and subsequent generators commitment to proceed may not be conveyed to the RC in time for adequate integration and verification prior to the In-Service/Synch/COD.

Yes

Group

ACES Standards Collaborators

Jason Marshall

ACES

No

(1) We disagree with the need for this standard. First, virtually every Transmission Owner of a BES Element is covered under a FERC approved tariff in the United States either under an approved regional tariff such as an ISO/RTO tariff or under their own tariff. Even transmission owners whose transmission rates are not regulated by FERC have FERC approved tariffs as a result of the reciprocity requirements in the FERC pro forma tariff. These tariffs require interconnection processes, facility studies and facility connection analysis that are more rigorous than this NERC standard. This would mean this entire standard meets paragraph 81 criterion B7 in that is redundant with another regulation and is, thus, unnecessary. This criterion is very clear that “in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be removed with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.” Second, the purpose statement of standard is even clear that the standard is written for commercial business practice purposes. It states “so that Facilities seeking interconnection will have the information necessary for considering and pursuing that interconnection.” How does adding another End-User Facility support the reliability operation of the BES? It does not support BES reliability, but rather supports the local End-User facility owner’s reliability which is necessary and laudable but is not covered under the statutory authority of the Energy Policy Act of 2005 which is to promote reliable operation of the Bulk Power System (BPS). (2) For R1 and R2, to whom exactly is the TO and GO supposed to make their Facility interconnection requirements available? As the requirement is written, it is open ended which means that the TO and GO would literally have to supply their Facility interconnection requirements to any party that requests them. We suggest limiting the entities to whom the TO must supply the Facility interconnection requirements to only those seeking to interconnect. (3) Part 3.1 requires procedures for coordinated studies of new or materially modified Facilities. This Part appears to be inconsistent with proposed FAC-002

which correctly requires the PC or TP to perform the Facility interconnection studies. Why would the TO need procedures for coordinated studies if they don't perform the studies? Please refine this part to further clarify what is actually required of the TO. (4) In Part 3.2, why was Transmission dropped as an adjective of system? Standards apply to the Bulk Electric System which could be thought of as the Transmission system. Thus, striking "Transmission" would imply that the purpose is to expand the requirement application beyond the Transmission system and, thus, beyond the Bulk Electric System (BES). Furthermore, "System" is defined term in the NERC Glossary that includes generation, transmission and distribution. While we understand that the term was not capitalized, thus, meaning the NERC definition does not apply, this causes further confusion because many readers will assume the non-capitalization is a mistake. Furthermore, the question becomes what definition is intended to apply if the NERC definition does not apply. For consistency, we suggest that BES would be the more correct term and cause less ambiguity. We suggest changing "system" to BES. (5) A data retention period of three years is excessive for a standard that requires Facility interconnection requirement (i.e. essentially a document). We suggest a data retention period of no longer than one year and possibly to simply retain the most recent Facility interconnection requirements documents.

No

(1) We disagree with the need for this standard. First, virtually every transmission owner of a BES Element is covered under a FERC approved tariff in the United States either under an approved regional tariff such as an ISO/RTO tariff or under their own tariff. Even most transmission owners whose transmission rates are not regulated by FERC have FERC approved tariffs as a result of the reciprocity requirements in the FERC pro forma tariff. Those tariffs require interconnection processes, facility studies and facility connection analysis, which are more rigorous than this NERC standard. This would mean this entire standard meets paragraph 81 criterion B7 in that is redundant with another regulation and is, thus, unnecessary. This criterion is very clear that "in the case of redundancy, the task or activity itself may contribute to a reliable BES, but it is not necessary to have two duplicative requirements on the same or similar task or activity. Such requirements can be removed with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program." Second, this standard has a major gap that cannot be addressed or closed due to the registration process. This proposed standard cannot be applicable to an entity wishing to interconnect a generator that is not already registered as a Generation Owner. The NERC registration framework does not allow prospective registration and it should not. This further highlights why this standard is not necessary and why the tariff processes are necessary, important, and fully address the issue making the standard superfluous. (2) If this standard persists, it should only apply to the entity that has the tariff that requires the study whether that entity is the PC, TP or some other entity. All requirements applying to non-study entities (i.e. GO, TO, DP, LSE) should be removed. The study entity is responsible per tariff processes and requirements to ensure studies are completed to assess reliability impacts and that the interconnection will meet all planning criteria and standards. The gap previously highlighted regarding a never before registered entity requesting an interconnection highlights why it is truly the entity that has the tariff

that has the responsibility to complete the studies. It is their tariff that will ensure an entity that is not NERC registered will be interconnected in a reliable manner. It is their tariff that allows them to curtail the interconnection process if the interconnection requestor does not follow the interconnection process (e.g. supplying necessary and timely data). This will provide more incentive for an interconnection requestor that truly needs the new interconnection than a NERC standard ever will. (3) The purpose needs to be modified. The purpose is simply to study the impact of new or materially modified Facility interconnections. It is not to coordinate studies. While coordination may be required, it is ambiguous and does not define the purpose. Please strike "and coordinating" from the purpose statement. (4) Applicability section 4.1.6.1 has a grammatically error. Remove "to" from the phrase "to on the reliability impact". (5) Part 1.2 is redundant, creates potential for double jeopardy, is ambiguous and can be interpreted many ways which can only lead to inconsistent compliance outcomes. First, what does it mean to evaluate compliance against NERC Reliability Standards in terms of a Transmission Planner or Planning Coordinator studying the reliability impacts of a Facility interconnection? Does this mean the PC and TP must evaluate compliance against their requirements or against the requirements of the requestor (i.e. DP, GO, or TO)? Second, these other NERC requirements still apply without this reference in this Part 1.2. Thus, a violation of those requirements in the other standards will also necessarily cause a violation of this part resulting in double jeopardy. Please strike the portion of this requirement that references evaluating the studies against compliance with other NERC reliability standards. (6) Part 1.4 meets Paragraph 81 criteria, is ambiguous which can only lead to inconsistent compliance outcomes and may be inconsistent with FERC approved tariffs. With who exactly are the recommendations to be coordinated? The interconnecting requesting entity? If so, that would violate FERC approved tariffs because it is the FERC transmission provider (i.e. tariff administrator) that is responsible for conducting studies and determining what is required to interconnect. Also, what does it mean to coordinate with the entities involved? Coordination is vague and not measurable which again will lead to inconsistent compliance outcomes. If the part is retained it should state exactly what is required to coordinate and not use this term. If the SDT cannot define what is meant by coordination, then they should question if the requirement is truly necessary. Furthermore, Part 1.4 meets Paragraph 81 criteria because it is administrative (criterion B1) in nature and requires documentation (criterion B3) which is not necessary to protect the reliability of the BES. Think of it this way. Would absence of this document cause a BES reliability problem or a compliance problem (i.e. proving the study was completed)? We believe it is the latter because if the document does not exist the study may still have been completed and not the former and the part should be struck in its entirety. Obviously, the need to comply would incent the applicable entity to document the study which further supports its removal or moving it to the application guidelines section. (7) If Requirement R3 persists, Load-Serving Entity should be removed from the requirement. While the functional model does indicate that the LSE has some responsibility in determining the need for a new Facility interconnection, this is not the same as seeking or requesting a new Facility interconnection. The functional model is clear that the DP has this responsibility with the statement that the DP develops interconnection agreements with TOs on a facility basis. Part of the end result of

a Facility interconnection process is an interconnection agreement. Thus, while the DP may have to work with the LSE if they are different, it is the DP that has the responsibility to submit the request, submit the data, follow the process and develop the interconnection. Furthermore, they will not be different entities because section III.a.4 of Appendix 5B – Statement of Compliance Registry Criteria in the Rules of Procedure is clear that a DP will also be registered as an LSE so inclusion of the LSE is redundant. (8) If Requirements R2, R3, and R4 persist, they need to be revised because they are ambiguous which will lead to inconsistent compliance outcomes and are inconsistent with R1. First, what does coordinate and cooperate mean? How will it be measured? Will the PC or TP be asked by auditors if they feel the interconnection requestor cooperated? Coordination and cooperation are terms that are vague when used in standards requirements and nearly impossible to measure compliance against. Based on other language in the requirements and the VSL language, the purpose appears to be focused on ensuring that the applicable entities supply data. If this is what is intended, then the requirements should state this directly rather than using vague language such as coordinate and cooperate. Either way, this language needs revisions if the requirements persist. Second, each of the requirements state that data shall be provided as described in R1.1 through R1.3. There is no data described in Part 1.1 through Parts 1.3. Rather these parts describe what the studies must include. Third, there are not sub-requirements and these requirements should not use the R descriptor for R1.3 through R1.3. Rather, these should be referred to as Parts 1.1 through 1.3. In previous guidance provided to the Commission, NERC has declared that they will no longer write standards with sub-requirements but rather with numbers lists that must all be met referred to as parts or bulleted lists with options.

No

We believe the implementation plan should be modified to reflect the complete retirement of these standards based on the reasons stated in questions 1 and 2. Thank you for the opportunity to comment.

Individual

Bill Temple

Northeast Utilities

Yes

suggest capitalizing “Applicable Generator Owner” throughout the standard (background and requirements)

Yes

suggest capitalizing “Applicable Generator Owner” throughout the standard (background and requirements) R1.1, R1.2, R1.3 seem to be duplicative. Evidence presented to show compliance would be identical for these 3 requirements.

Yes

Individual

Dan Inman
Minnkota Power Cooperative
MRO's NERC Standards Review Forum (NSRF)
No
Please clarify the scope of the requirements. It should be limited to interconnections to the BES, correct? According to the Background information on page 5 of 15, under "5. Background", the objective supports reliability principle 3, which refers to the "bulk power systems." R3.1 Clarify the meaning of the expression, "materially modified". The expression can be interpreted to include the partial or complete retirement of any generation, transmission, or distribution interconnection facilities. R3.2: "those responsible for the reliability of the interconnected affected Transmission system(s)" is vague, is this the intent of the SDT? Should this be more prescriptive and identify the appropriate NERC Registered Function, such as Reliability Coordinator?
No
R1.2 Which T.O.'s planning criteria apply, the T.O. that received the interconnection request, or the affected system T.O.? R1.4 could be revised for clarity between the assessment and the resulting report. As an example; "Documentation of the study assumptions, alternatives considered, and coordinated recommendations used in the assessment. While these studies may be performed independently, the results shall be evaluated and coordinated by the entities involved."
Yes
Group
Florida Power & Light
Mike O'Neil
Florida Power & Light
Yes
The revised requirements will necessitate some revisions to FPL's Facility Connection Requirements document (as an example, changing connection requirements to interconnection requirements where appropriate) however the changes are easily manageable within the proposed implementation plan timeframe.
No
The revision wording is only a slight improvement to the original poorly crafted standard, and now seems repetitive in requirements 2, 3, and 4. (Appears that R2 and R3 can be combined, and the "gap" that R4 is trying to address is not clear.) The fact that FAC-002-1 R1 now requires studies instead of assessments is a slight concern because we already perform Generator Interconnection Studies for customers under the FERC OATT with prescriptive language to meet the FERC requirements. At least for generator interconnections, the required study would be duplicative, whereas an assessment of the study might be more appropriate. Also, the phrase in R2, R3, and R4 "including but not limited to the provision of

data, as described in R1.1 – R1.3.” seems circular because the sub-requirements do not refer to provision of any data, although data would be required to perform the evaluations that R1.1-R1.3 refer to, and coordination and cooperation should be required to get any necessary data. The phrase should be replaced with just a period. Similarly, the Measures for R2, R3, and R4 have a circular reference phrase “that it met all requirements in Rx.” The phrase should be replaced with “that it coordinated and cooperated, to the extent requested by its Transmission Planner or Planning Coordinator.” Finally, the clean draft has the TP and TO on the same line under Functional Entities in the Applicability section. They should be separate.

Yes

Assuming that FAC-002-1 is revised to further clarify.

Individual

Spencer Tacke

Modesto Irrigation District

No

I am voting NO on the proposed revisions to both standards for the following reasons: 1, FAC-002-2 refers to its applicability to the BES, while FAC-001-1 does not mention being applicable to the BES at all, yet the two standards are a pair that are interdependent. This will lead to confusion and mis-application of these two standards by NERC members. 2. In FAC-002-2 in section 1.4 (proposed 1.3), deleting the specific requirements to perform steady-state and dynamics studies in accordance with NERC TPL-001 through TPL—003 is a mistake. We would be changing from very specific and good requirements, to no specific requirements at all. 3. In FAC-002-2 in section 5 (Background), it is confusing to use the term “interconnected bulk power system” if what is meant is the BES. Otherwise, they should define what they specifically mean by “interconnected bulk power system”. 4. Also, in general, the proposed changes for FAC-001-1, with the exception of the first two under Purpose and Background, actually de-clarify the requirements instead of clarifying them. Thanks. Sincerely, Spencer Tacke MID

Group

ISO/RTO Council Standards Review Committee

Gregory Campoli

New York Independent System Operator

No

All three requirements R1, R2 and R3 lists the Time Horizon to be Long-term Planning. In many ISOs and RTOs, proposed Interconnections can fall under either Near-term Planning or Long-term-Planning. The NERC Glossary defines Long-term as 6 to 10 years out and beyond, and Near-term as 1 to 5 years out. Some ISOs’ interconnection studies use base cases that

are 5-years out. We would suggest that the Time Horizon in FAC-001-2 to include Near-term Planning as well.

No

Below are some comments/proposed changes for consideration: a. Applicability Section 4.1: Suggest adding Load-Serving Entity in view of the responsibility assigned to these entities in Requirement R3. b. Applicability Section 4.1.2: Split Transmission Planner and Transmission Owner. c. Applicability Section 4.1.5: Applicable Generator Owners: The word “to” in the part “...a study to on the reliability impact...” should be removed. Also, suggest to combine 4.1.5 with 4.1.5.1 by revising 4.1.5 to: 4.1.5 Generator Owner with an executed Agreement to conduct a study on 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 systems. d. Similar comments on Time Horizon as indicated in Q1, above, for FAC-001-2 also apply to the four requirements in FAC-002-2. e. Requirement R1: We do not believe R1 is needed. The need for the PC and TP to conduct studies to assess reliability impacts of proposed additions/modification by TOs, DPs and GOs is not identified or stipulated in the existing FAC-002-1. While we agree that PC and TP have a role to review and coordinate studies by entities that propose to add new or modify existing Facilities, their role should be to review and concur/approve the proponent’s assessments only. Wrt considering impacts of the proposed additions/modifications, in the PC’s and TP’s periodic assessments to meet the TPL standard requirements, they are already required to consider and include approved and proposed Facility changes in their impacts assessed. Stipulating this requirement in the FAC-002 standard will result in duplicating with the TPL standard. We suggest removing R1 from the standard. (The CAISO wishes to be excluded from the comment provided above under bullet "e.") The obligation to assess and demonstrate reliability impact/performance on the affected system(s) should be placed on the TO/TP of the affected system(s) to study their own system, with the proponents themselves (i.e., the GO, TO, DP, LSE, and not the PC) initiating the interconnection study process with the TO/TP of the affected system(s). f. If the SDT should decide to retain R1, then we would suggest the following changes: i. R1 should have an “or” instead of “and” as shown below to be consistent with the terminology used in the VSLs. R1. Each Transmission Planner or each Planning Coordinator shall conduct studies on the reliability impact of integrating new or materially modified generation, transmission, or electricity end-user Facilities. ii. R1.1 We recommend continuing to use the original terminology of: “interconnected transmission systems” rather than “affected system(s).” The use of the term “affected system(s)” is not clear, as FERC uses the term affected systems as being neighboring systems other than one’s own system. iii. R1.2 Add: Planning Coordinator planning criteria. R1.2 should include Planning Coordinator planning criteria. The use of the term “regional” is unclear as to whether or not it includes Planning Coordinator planning criteria. We suggest modifying R1.2 to read: R1.2 Evaluation of compliance with applicable NERC Reliability Standards; regional criteria, Planning Coordinator planning criteria, Transmission Owner planning criteria; and Facility interconnection requirements; iv. For R2-R4, should add: “or materially modify” as in “seeking to interconnect or materially modify generation Facilities”. v. R2-R4, should add: “including but not limited to the provision of data for the required studies”. We suggest

modifying the language in R2-R4 to read: Each entity (GO, TO, DP, LSE) seeking to interconnect or materially modify generation Facilities shall coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator, including but not limited to the provision of data for the required studies as described in R1.1-R1.3. The SRC would also like to raise the following issue as a general matter: The SRC requests that the Standard Drafting Team assess whether these Requirements conflict or are redundant from regulatory requirements that exist under FERC's Pro Forma Generator Interconnection rules. For example, under proposed FAC-002, 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 rules 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 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 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.

Yes

Individual

Patrick Farrell

Southern California Edison Company

No

The Planning Coordinator is the only appropriate entity for coordination of affected system impacts. As R3.1 is currently written, the Transmission Owner is responsible for developing procedures, which would only work well if the TO is also its own PC and BA. In the case where a TO is not a BA or PC, as is found in an ISO or RTO framework, the responsibility for coordinating impacts to affected systems falls on the ISO or RTO. As written, R3.1 creates a disconnect between the compliance responsibility to coordinate affected system impacts and the ISO's tariff obligation. Essentially, the compliance burden of an ISO function is being placed on a TO in a case where the two functional entities are not the same. SCE believes that coordinating impacts to affected systems more appropriately belongs in FAC-002-2 – Facility Interconnection Studies and should be assigned to the Planning Coordinator. This approach will work within an ISO/RTO framework, as well as in cases where the TO is also the PC. SCE proposes removing "and their impacts to affected systems" from R3.1 and completely removing R3.2. FAC-002-2 should include a new requirement (R5) to identify the Planning Coordinator's responsibility to coordinate the impact to affected systems.

No

Thank you for adding clarity while removing redundancies. Although SCE agrees with the proposed revisions in FAC-002-2, we feel that a new requirement (R5) needs to be added in

order to properly identify the Planning Coordinator’s responsibility to coordinate the impact to affected systems. Justification for this recommendation can be found in SCE’s comments on FAC-001-2.

Yes

Individual

Ayesha Sabouba

Hydro One

Yes

No

A. Requirement 1.1 is the repeat of R1 itself and doesn’t add any clarity or specificity to “evaluation of reliability impact” which is already required by R1. Requirement 1.1 should be deleted (the phrase “on affected system(s)” could be added to R1.) B. Requirement 1.2, “Evaluation of compliance with applicable NERC Reliability Standards” is too broad. The “applicable NERC Reliability Standards” include all aspects of operation as well as planning, some of which are difficult or impossible for Planning Coordinator and Transmission Planner to evaluate or enforce at the time of connection assessment. Examples are requirements in TOP and PRC standards that are not the PC and TP expertise and applicability. The scope of R1.2 should be limited to only those NERC Reliability Standards that are applicable to PC and TP (mainly the TPL standards). C. At the core of FAC-002, for which PC and TP have direct role, is Requirement 1.3 and it should be given more emphasis, with specific requirement to perform the studies to ensure compliance with TPL standards.

Individual

Scott Berry

Indiana Municipal Power Agency

Agree

Indiana Municipal Power Agency supports the comments submitted by Florida Municipal Power Agency (FMPA). In addition, IMPA believes there is a format issue on FAC-002-2 in the applicability section. Requirement R3 requires the LSE to perform a task but LSE is not listed in the applicability section which is number 4. Instead, LSE is listed as number 5 and is listed after the applicability section, therefore, LSE is not listed in the applicability section.

Group

Arizona Public Service Company

Janet Smith

Arizona Public Service Company

Yes

Yes

Although AZPS appreciates the effort to better reflect industry processes, AZPS would like the drafting team to verify that the new requirement will have no impact on the Transmission Planner's processes, including financial elements, for completing the necessary studies as described in the entity's Open Access Transmission Tariff.

Yes

Individual

Richard Vine

California ISO

No

Comments: Although in general we are supportive of the proposed revisions to FAC-002-2, we have several comments as listed below that we request the SDT to address: • R1 should have an "or" instead of "and" as shown below to be consistent with the terminology used in the VSLs. R1. Each Transmission Planner or each Planning Coordinator shall conduct studies on the reliability impact of integrating new or materially modified generation, transmission, or electricity end-user Facilities. • The Time Horizon for all of the FAC-002-2 Requirements, particularly R1, should include: "Near-term Planning or Long-term Planning" Time Horizon: [Near-term Planning or Long-term Planning] • R1.1 We recommend continuing to use the original terminology of: "interconnected transmission systems" rather than "affected system(s)." The use of the term "affected system(s)" is not clear, as FERC uses the term affected systems as being neighboring systems other than one's own system. • Regarding R1 and R1.1: The obligation to assess and demonstrate reliability impact and performance on the affected system(s) [or interconnected transmission systems] should be placed on the TO/TP of the affected system(s) [or interconnected transmission systems] to study their own system(s) and identify necessary mitigations, with the project proponents themselves (i.e., the GO, TO, DP, or LSE) initiating the interconnection study process with the TO/TP of the affected system(s)." • R1.2 Add: Planning Coordinator planning criteria R1.2 should include Planning Coordinator planning criteria. The use of the term "regional" is unclear as to whether or not it includes Planning Coordinator planning criteria. We suggest modifying R1.2 to read: R1.2 Evaluation of compliance with applicable NERC Reliability Standards; regional criteria, Planning Coordinator planning criteria, Transmission Owner planning criteria; and Facility interconnection requirements; • For R2-R4, should add: "or materially modify" as in "seeking to interconnect or materially modify generation Facilities" • R2-R4, should add: "including but not limited to the provision of data for the required studies" We suggest modifying the language in R2-R4 to read: Each entity (GO, TO, DP, LSE) seeking to interconnect or materially modify generation Facilities shall coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator, including but not limited to the provision of data for the required studies as described in R1.1-R1.3.

Yes
Individual
Chang G. Choi
City of Tacoma - Tacoma Power
Yes
Yes
Yes
Group
SPP Standards Review Group
Shannon V. Mickens
Southwest Power Pool Inc.
Yes
While we generally agree with the proposed revisions, we have the following recommendations for the SDT to consider. Delete the 'to' at the end of the first line of Applicability section 4.1.2.1. The Rationale box for Requirement R3 contains a reference to subparts of R3. Other recently approved standards, most notably CIP-014-1 referred to subparts as Parts. We suggest that the SDT use this same format in the proposed FAC-001-2. Insert 'Parts 3.1 – 3.2' following Requirement R3 at the end of M3. Replace '...R1.1, R1.2 or R1.3.' at the end of the Moderate and High VSLs for R1 with '...Requirement R1, Parts 1.1 – 1.3. Replace '...R3.1 or R3.2...' in the High and Severe VSLs for R3 with '...Part 3.1 or Part 3.2...'. Under Requirement R3 in the Guidelines and Technical Basis, replace 'subparts' in the 1st and 5th lines with 'parts'. Also, insert a 'the' between 'to' and 'Guidelines' in the 2nd line of the same paragraph. Insert a 'the' in the 3rd bullet between the 'at' and the 'point' in the 2nd paragraph under Requirement R3 of the Guidelines and Technical Basis section.
Yes
Again, while we generally agree with the proposed revisions, we have the following recommendations for the SDT to consider. Delete the 'to' at the end of the first line of Applicability section 4.1.2.1. In Part 1.3 of Requirement R1 insert commas such that the 2nd line reads '...dynamics studies, as necessary, to evaluate...'. Replace 'R1.1 – R1.3' in Requirements R2, R3 and R4 with 'Requirement R1, Parts 1.1 – 1.3'. Replace 'in its studies one of the parts in R1.1 –R1.4.' with 'one of Parts 1.1 through 1.4 in its studies.' at the end of the Lower VSL for R1. Make a similar change in the Moderate and High VSLs for R1. Replace 'in one of the parts in R1 – R1.4.' with 'one of Requirement R1, Parts 1.1 through 1.4.' at the

end of the Lower VSL for R2. Make a similar change in the Moderate and High VSLs for R2. Make similar changes in Requirements R3 and R4.

Yes

Individual

D Mason

HHWP

Yes

The background section includes the language, "This objective supports reliability principle 3", without any indication of the policy or document that this "reliability principle 3" is part of.

Yes

The background section includes the language, "This objective supports reliability principle 1", without any indication of the policy or document that this "reliability principle 1" is part of. This reference to "reliability principle 1" should be changed to make clear what body of policy it comes from. Requirement R2 states that "Each Generator Owner ... shall coordinate and cooperate on studies with its Transmission Planner or Planning Coordinator". It is recommended that the word "its" be replaced with "the appropriate". This recommendation is based on the observation that many GO's are working within multiple TP and PC areas.

Yes