

# Consideration of Comments

## Project 2010-02 Connecting New Facilities to the Grid

The FAC Drafting Team thanks all commenters who submitted comments on the proposed revisions to FAC-001-1 and FAC-002-1. These standards were posted for a 45-day public comment period from April 1, 2014 through May 15, 2014. Stakeholders were asked to provide feedback on the standards and associated documents through a special electronic comment form. There were 50 sets of comments, including comments from approximately 146 different people from approximately 110 companies representing all 10 Industry Segments as shown in the table on the following pages.

Based on stakeholder feedback and additional review, and in addition to correcting typographical errors and numbering inconsistencies, the SDT has made the following non-substantive changes to the standards to add clarity without changing meaning or intent:

### FAC-001-1

- **Purpose:** The SDT modified the Purpose to include a reference to reliability and to the Bulk Electric System, for consistency with the Purpose in FAC-002-2. The SDT changed “Facility connection requirements” to “Facility interconnection requirements” for consistency with the language used elsewhere in FAC-001-2 and FAC-002-2. The SDT also inserted the term “must” to maintain the previously stated objective of the standard – to protect the integrity of the Bulk Electric System by guaranteeing that entities have access to essential information when seeking interconnection. The SDT changed “Facilities” to “entities” per stakeholder comments that “Facilities” do not seek interconnection. While the SDT originally used “Facilities” for interconnections that involve non-NERC entities, in keeping with the logic of the Project 2010-07 – Generator Requirements at the Transmission Interface drafting team, it believes that the undefined term “entities” is broad enough to account for a variety of interconnections. The phrase “necessary for considering and pursuing that interconnection” was deemed superfluous and has been deleted.
- **Applicability:** The SDT added “fully” to 4.1.2.1 for consistency with the reference to “full execution of an Agreement” in R2. The SDT has deleted the word “to,” which was a typographical error. “Interconnected Transmission systems” was changed to “Transmission system.” “Interconnected Transmission systems” was only used in the Project 2010-07 revisions to FAC-001-0 for conformance with language in FAC-002-1. That language is not used in the proposed FAC-002-2, and thus it makes more sense to use the clearer “Transmission system.”
- **Background:** Because many commenters were confused about the reference to the reliability principles (which are referenced in the NERC [Standard Processes Manual](#) and posted as a [resource document](#) on NERC’s [Standards Resources](#) page), the drafting team has deleted that

sentence from the Background section. Without the section about the reliability principles, the Background too similar to the Purpose to add value, so the Background has been deleted.

- **R1:** The first words in the Parts of R1 were made lowercase to make clear that the terms are not referring to the NERC Glossary of Terms.
- **R2:** To ensure that the “what” of the requirement – the action required – is clear, the SDT moved the phrase that begins with “within 45 days...” to the end of the requirement. The SDT added “calendar” between “45” and “days,” as was the intention of the SDT (and was already reflected in the VSLs). “Interconnected Transmission systems” was changed to “Transmission system,” as explained in the summary of changes to the Applicability section, above.
- **R3, Part 3.2:** Similar to the change in R2, the SDT rearranged the words in this Part for clarity, without changing the meaning of the requirement.
- **R4:** Because an applicable Generator Owner that has already interconnected a Facility to its own Facilities would be required to register as a Transmission Owner, there is no need for applicable Generator Owners to be concerned with procedures regarding material modifications. This is why there is no “update as needed” requirement in R2; the SDT expects the requirement to apply in the time period between Agreement for interconnection, when an applicable Generator Owner is still registered as such, and the moment of interconnection, when an applicable Generator Owner also must register as a Transmission Owner. In the original R3, the SDT believed that an applicable Generator Owner could “address” procedures for materially modifying existing interconnections by indicating that such procedures were not applicable. Upon further review, the SDT believes it is clearer to create two requirements, R3 and R4, to mirror the construction of R1 and R2. Otherwise, the requirements for both Transmission Owners and applicable Generator Owners remain exactly the same, but the addition of R4 makes clearer that applicable Generator Owners need not be concerned with addressing materially modifying existing interconnections.
- **VSLs:** The VSLs were modified to conform with the minor changes to the requirement language. The High VSL for R1 was modified to better distinguish it from the Moderate VSL for R1.
- **Guideline and Technical Basis:** The SDT added some language to carry the consideration of materially modified existing interconnections through to the Guidelines and Technical Basis section. Because a Transmission Owner or applicable Generator Owner cannot compel another entity to comply with NERC’s standards (and can only give the other entities a list of Facility interconnection requirements that will ensure reliability once the interconnection is made), the final sentence of the Guidelines and Technical Basis section has been deleted, as it was determined to be meaningless.

## FAC-002-2

- **Purpose:** The word “evaluate” was changed to “study” for clearer conformance to the language of the standard, and the reference to conducting and coordinating was deleted to keep the Purpose appropriately high-level.
- **Applicability:** In the last posting of the standard, Transmission Planner and Transmission Owner appeared on the same line of the Applicability section, and Load-Serving Entity appeared in the Background section instead of the Applicability section. Both errors have been corrected. The SDT added “fully” to 4.1.2.1 for consistency with the reference to “full execution of an Agreement” in FAC-001-2, R2. The SDT has deleted the word “to,” which was a typographical error.
- **Background:** Because many commenters were confused about the reference to the reliability principles (which are referenced in the NERC [Standard Processes Manual](#) and posted as a [resource document](#) on NERC’s [Standards Resources](#) page), the drafting team has deleted that sentence from the Background section. Without the section about the reliability principles, the Background too similar to the Purpose to add value, so the Background has been deleted.
- **R1:** To keep terminology consistent, the SDT changed “integrating” to “interconnecting.” The SDT also tightened the main requirement language by changing “conduct studies on” to “study” and removing the redundant “Evaluation of” and “Documentation that...” in the Parts. Throughout FAC-002-2, and in the main requirement language and Part 1.1, the SDT added “existing” to descriptions of material modification to draw a better distinction between new interconnections and materially modified existing interconnections.
- **R1, Part 1.2:** Because “compliance” has a specific connotation in the NERC environment and, even when it comes to NERC Reliability Standards, the standard should not give the impression that the Planning Coordinator or Transmission Planner is responsible for the interconnecting entity’s future compliance with NERC Standards. The SDT has changed “compliance” to “adherence” to retain the original intended meaning – that the Transmission Planner or Planning Coordinator consider all applicable NERC Reliability Standards as it studies a possible new interconnection or material modification to an existing interconnection – but reflect the fact that the entities cannot actually enforce future compliance with the Reliability Standards.
- **R2-R4:** To better connect with the reference to “material modifications” in R1, the SDT has added references to material modifications in R2, R3, and R4. It has also changed the references to subrequirements to “R1, Parts 1.1-1.4.”
- **R5:** Because an applicable Generator Owner that has already interconnected a Facility to its own Facilities would be required to register as a Transmission Owner, there is no need for applicable Generator Owners to be concerned with studies regarding materially modifying existing interconnections. The SDT believes it is clearer to create two requirements, R4 and R5, to mirror the construction in FAC-001-2. Otherwise, the requirements for both Transmission Owners and applicable Generator Owners remain exactly the same, but the addition of R5

makes clearer that applicable Generator Owners need not be concerned with addressing materially modifications to existing interconnections.

The SDT has provided responses to all stakeholder comments below, in the “Summary Consideration” section of each question. All comments submitted may be reviewed in their original format on the standard’s [project page](#).

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Director of Standards, Valerie Agnew, at 404-446-2566 or at [valerie.agnew@nerc.net](mailto:valerie.agnew@nerc.net). In addition, there is a NERC Reliability Standards Appeals Process.<sup>1</sup>

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<sup>1</sup> The appeals process is in the Standard Processes Manual: [http://www.nerc.com/comm/SC/Documents/Appendix\\_3A\\_StandardsProcessesManual.pdf](http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf)

**Index to Questions, Comments, and Responses**

1. The SDT has proposed the following key revisions to FAC-001-2: • Revised the title and purpose to reflect the language in the requirements. • Removed the reference in R1 to: “...compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements” because it is redundant with FAC-002, R1.2. • Moved all of the subparts in R3, except for R3.1 and R3.2, and to the Guidelines and Technical Basis section. The SDT wants to provide entities with the flexibility to determine the Facility interconnection requirements that are technically appropriate for their respective Facilities. Including them as subparts of R3 was deemed too prescriptive, as frequently some items in the list will not apply to all applicable entities – and some applicable entities will have requirements that expand upon the list. The Guidelines should be used as a starting point for each Transmission Owner and applicable Generator Owner to consider in the development of Facility interconnection requirements. • Modified R3 to ensure that the impact on third parties is appropriately addressed. • Retired R4. • Updated all compliance elements: updated the Measures to add examples of acceptable evidence; modified the VSLs for conformance with the updated requirement language; modified the VRFs for conformance with NERC’s VRF guidelines; added Time Horizons to each requirement.....16

2. The SDT has proposed the following key revisions to FAC-002: • Revised the title and purpose to reflect the language in the requirements. • Rearranged the order of Functional Entities in the Applicability section to reflect the order in the Functional Model; changed “Planning Authority” in the applicability section to “Planning Coordinator” to reflect the Functional Model, as well as the recently revised TPL-001-4; added “Applicable Generator Owner” to the Applicability section so that R4 does not require a reference to FAC-001 • Separated R1 into four requirements to add clarity and better distinguish the actions required of the applicable entities. • Revised the subparts of R1 to remove elements that are more appropriate for Measures. • Modified R1.1 to ensure that the impact on third parties is appropriately addressed. • Modified R1.4 to remove the reference to the TPL Reliability Standards to avoid redundancy with the R1.2 reference to “all NERC Reliability Standards.” • Updated all compliance elements: added Measures, VRFs, and Time Horizons to each requirement; modified the VSLs for conformance with the updated requirement language.....44

3. Do you agree with the timeline for implementation as proposed in the Implementation Plan .....84



**The Industry Segments are:**

- 1 — Transmission Owners
- 2 — RTOs, ISOs
- 3 — Load-serving Entities
- 4 — Transmission-dependent Utilities
- 5 — Electric Generators
- 6 — Electricity Brokers, Aggregators, and Marketers
- 7 — Large Electricity End Users
- 8 — Small Electricity End Users
- 9 — Federal, State, Provincial Regulatory or other Government Entities
- 10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment										
				1	2	3	4	5	6	7	8	9	10	
1.	Group	Louis Slade	Dominion											X
Additional Member		Additional Organization		Region		Segment Selection								
1.	Mike Garton	NERC Compliance Policy				1, 3, 5, 6								
2.	Connie Lowe	NERC Compliance Policy				1, 3, 5, 6								
3.	Randi Heise	NERC Compliance Policy				1, 3, 5, 6								
4.	Chip Humphrey	Power Generation Compliance												
5.	Jarad L Morton	Power Generation Compliance		NPCC		5								
6.	Larry Whanger	Power Generation Compliance		SERC		5								
7.	Nancy Ashberry	Power Generation Compliance		RFC		5								
8.	Angela Park	Electric Transmission Compliance		SERC		1, 3								
9.	Candace L Marshall	Electric Transmission Compliance		SERC		1, 3								

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
10. Larry Nash	Electric Transmission Compliance	SERC	1, 3											
11. Larry W Bateman	Electric Transmission Compliance	SERC	1, 3											
12. Jeffrey N Bailey	Nuclear Compliance	SERC	5											
13. Tom Huber	Nuclear Compliance	NPCC	5											
2.	Group	Guy Zito	Northeast Power Coordinating Council											
	<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>										
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC	10										
2.	David Burke	Orange and Rockland Utilities Inc.	NPCC	3										
3.	Greg Campoli	New York Independent System Operator	NPCC	2										
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1										
5.	Ben Wu	Orange and Rockland Utilities Inc.	NPCC	1										
6.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10										
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5										
8.	Matt Goldberg	ISO - New England	NPCC	2										
9.	Michael Jones	National Grid	NPCC	1										
10.	Mark Kenny	Northeast Utilities	NPCC	1										
11.	Christina Koncz	PSEG Power LLC	NPCC	5										
12.	Helen Lainis	Independent Electricity System Operator	NPCC	2										
13.	Alan MacNaughton	New Brunswick Power Corporation	NPCC	9										
14.	Bruce Metruck	New York Power Authority	NPCC	6										
15.	Wayne Sipperly	New York Power Authority	NPCC	5										
16.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10										
17.	Robert Pellegrini	The United Illuminating Company	NPCC	1										
18.	Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1										
19.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5										
20.	Brian Robinson	Utility Services	NPCC	8										
21.	Ayesha Sabouba	Hydro One Networks Inc.	NPCC	1										
22.	Brian Shanahan	National Grid	NPCC	1										
3.	Group	Steve Hill	NCPA Generation					X	X	X				
	<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>										
1.	Hari Modi	NCPA	WECC	5										



Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
4.	Group	Sandra Shaffer	PacifiCorp						X				
No Additional Responses													
5.	Group	Joe DePoorter	MRO NERC Standards Review Forum	X	X	X	X	X	X				
		<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>								
1.	Amy Casuscelli	Xcel Energy	MRO	1, 3, 5, 6									
2.	Chuck Wicklund	Otter Tail Power	MRO	1, 3, 5									
3.	Dan Inman	Minnkota Power Coop	MRO	1, 3, 5, 6									
4.	Dave Rudolph	Basin Electric Power Coop	MRO	1, 3, 5, 6									
5.	Kayleigh Wilkerson	Lincoln Electric System	MRO	1, 3, 5, 6									
6.	Jodi Jensen	WAPA	MRO	1, 6									
7.	Joseph DePoorter	Madison Gas & Electric	MRO	3, 4, 5, 6									
8.	Ken Goldsmith	Alliant Energy	MRO	4									
9.	Mahmood Safi	Omaha Public Power District	MRO	1, 3, 5, 6									
10.	Marie Knox	MISO	MRO	2									
11.	Mike Brtowski	Great River Energy	MRO	1, 3, 5, 6									
12.	Randi Nyholm	Minnesota Power	MRO	1, 5									
13.	Scott Bos	Muscatine Power & Water	MRO	1, 3, 5, 6									
14.	Scott Nickles	Rochester Public Utilities	MRO	4									
15.	Terry Harbour	MidAmerican Energy	MRO	1, 3, 5, 6									
16.	Tom Breene	Wisconsin Public Service	MRO	3, 4, 5, 6									
17.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5									
6.	Group	Cindy Stewart	FirstEnergy	X		X	X	X	X				
		<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>								
1.	William Smith	FirstEnergy Corp	RFC	1									
2.	Douglas Hohlbaugh	Ohio Edison	RFC	4									
3.	Kenneth Dresner	FirstEnergy Solutions	RFC	5									
4.	Kevin Query	FirstEnergy Solutions	RFC	6									
7.	Group	Kaleb Brimhall	Colorado Springs Utilities	X		X		X	X				
No Additional Responses													
8.	Group	Kathleen Black	DTE Electric			X	X	X					

Group/Individual	Commenter	Organization	Registered Ballot Body Segment										
			1	2	3	4	5	6	7	8	9	10	
<b>Additional Member Additional Organization Region Segment Selection</b>													
1.	Kent Kujala	NERC Compliance	RFC	3									
2.	Daniel Herring	NERC Training & Standards Development	RFC	4									
3.	Mark Stefaniak	Regulated Marketing	RFC	5									
4.	Jurgita Albarazi	NERC Compliance	RFC										
5.	Alicia Davey	OPE	RFC										
9.	Group	Dennis Chastain	Tennessee Valley Authority	X		X		X	X				
<b>Additional Member Additional Organization Region Segment Selection</b>													
1.	DeWayne Scott		SERC	1									
2.	Ian Grant		SERC	3									
3.	David Thompson		SERC	5									
4.	Marjorie Parsons		SERC	6									
10.	Group	Michael Lowman	Duke Energy	X		X		X	X				
<b>Additional Member Additional Organization Region Segment Selection</b>													
1.	Doug Hills		RFC	1									
2.	Lee Schuster		FRCC	3									
3.	Dale Goodwine		SERC	5									
4.	Greg Cecil		RFC	6									
11.	Group	Frank Gaffney	Florida Municipal Power Agency	X		X	X	X	X				
<b>Additional Member Additional Organization Region Segment Selection</b>													
1.	Tim Beyrle	City of New Smyrna Beach	FRCC	4									
2.	James Howard	Lakeland Electric	FRCC	3									
3.	Greg Woessner	Kissimmee Utility Authority	FRCC	3									
4.	Lynne Mila	City of Clewiston	FRCC	3									
5.	Cairo Vanegas	Fort Pierce Utility Authority	FRCC	4									
6.	Randy Hahn	Ocala Utility Services	FRCC	3									
7.	Don Cuevas	Beaches Energy Services	FRCC	1									
8.	Stanley Rзад	Keys Energy Services	FRCC	1									
9.	Mark Schultz	City of Green Cove Springs	FRCC	3									

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
12.	Group	Pamela Hunter	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	X		X		X	X				
No Additional Responses													
13.	Group	Jason Marshall	ACES Standards Collaborators						X				
<b>Additional Member</b>		<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>									
1.	Chip Koloini	Golden Spread Electric Cooperative	SPP	5									
2.	Mohan Sachdeva	Buckeye Power	RFC	3, 4									
3.	Steve McElhaney	SMEPA	SERC	1, 3, 4, 5, 6									
4.	Brian Hobbs	Western Farmers Electric Cooperative	SPP	1, 5									
5.	Ginger Mercier	Prairie Power	SERC	3									
6.	Shari Heino	Brazos Electric Power Cooperative	ERCOT	1, 5									
7.	Scott Brame	North Carolina Electric Membership Corporation	SERC	1, 3, 4, 5									
8.	Kevin Lyons	Central Iowa Power Cooperative	MRO										
9.	Ellen Watkins	Sunflower Electric Power Corporation	SPP	1									
10.	Bob Solomon	Hoosier Energy	RFC	1									
14.	Group	Mike O'Neil	Florida Power & Light	X									
No Additional Responses													
15.	Group	Gregory Campoli	ISO/RTO Council Standards Review Committee		X								
<b>Additional Member</b>		<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>									
1.	Matt Goldberg	ISO-NE	NPCC	2									
2.	Ben Li	IESO	NPCC	2									
3.	Ali Miremadi	CAISO	WECC	2									
4.	Charles Yeung	SPP	SPP	2									
5.	Cheryl Moseley	ERCOT	ERCOT	2									
6.	Al DiCaprio	PJM	RFC	2									
7.	Terry Bilke	MISO	MRO	2									

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
16.	Group	Janet Smith	Arizona Public Service Company	X		X		X	X				
No Additional Responses													
17.	Group	Shannon V. Mickens	SPP Standards Review Group		X								
<b>Additional Member</b>		<b>Additional Organization</b>		<b>Region Segment Selection</b>									
1.	Jonathan Hayes	Southwest Power Pool Inc.	SPP	2									
2.	Stephanie Johnson	Westar Energy, Inc.	SPP	1, 3, 5, 6									
3.	Scott Jordan	Southwest Power Pool Inc.	SPP	2									
4.	Mike Kidwell	Empire District Electric Company	SPP	1, 3, 5									
5.	David McRae	Arkansas Electric Cooperative Corporation	SPP	3, 4, 5, 6									
6.	Mahmood Safi	Omaha Public Power District	SPP	1, 3, 5									
7.	J.Scott Williams	City of Utilities of Springfield	SPP	1, 4									
18.	Individual	Greg Froehling	Rayburn Country Electric Cooperative			X							
19.	Individual	Dan Roethemeyer	Dynergy	X				X					
20.	Individual	Kayleigh Wilkerson	Lincoln Electric System	X		X		X	X				
21.	Individual	Jo-Anne Ross	Manitoba Hydro	X		X		X	X				
22.	Individual	David Jendras	Ameren	X		X		X	X				
23.	Individual	Michelle D'Antuono	Ingleside Cogeneration LP					X					
24.	Individual	Mark Wilson	Independent Electricity System Operator		X								
25.	Individual	David Thorne	Pepco Holdings Inc.	X		X							
26.	Individual	Amy Casuscelli	Xcel Energy	X		X		X	X				
27.	Individual	William H. Chambliss	Virginia State Corporation Commission (member, Operating Committee)										
28.	Individual	Brett Holland	Kansas City Power & Light	X		X		X	X				
29.	Individual	Sergio Banuelos	Tri-State Generation and Transmission Association, Inc.	X		X		X					
30.	Individual	Teresa Czyz	Georgia Transmission Corporation	X		X							
31.	Individual	Thomas Foltz	American Electric Power	X		X		X	X				
32.	Individual	Scott McGough	Georgia System Operations Corporation			X							

Group/Individual		Commenter	Organization	Registered Ballot Body Segment										
				1	2	3	4	5	6	7	8	9	10	
33.	Individual	Andrew Z. Puztai	American Transmission Company, LLC	X										
34.	Individual	Venona Greaff	Occidental Chemical Corporation								X			
35.	Individual	Chris Scanlon	Exelon	X		X	X	X	X					
36.	Individual	Anthony Jablonski	ReliabilityFirst											X
37.	Individual	Tammy Porter	Oncor Electric Delivery	X										
38.	Individual	Marc Dubord	Hydro Quebec production					X						
39.	Individual	David Kiguel	David Kiguel								X			
40.	Individual	Scott Hoggatt	Wisconsin Electric			X	X	X						
41.	Individual	Mitch Colburn	Idaho Power Company	X										
42.	Individual	Bill Temple	Northeast Utilities	X										
43.	Individual	Dan Inman	Minnkota Power Cooperative	X										
44.	Individual	Spencer Tacke	Modesto Irrigation District				X							
45.	Individual	Patrick Farrell	Southern California Edison Company	X		X		X	X					
46.	Individual	Ayesha Sabouba	Hydro One			X								
47.	Individual	Scott Berry	Indiana Municipal Power Agency				X							
48.	Individual	Richard Vine	California ISO		X									
49.	Individual	Chang G. Choi	City of Tacoma - Tacoma Power	X		X	X	X	X					
50.	Individual	D Mason	HHWP	X				X						

If you support the comments submitted by another entity and would like to indicate you agree with their comments, please select "agree" below and enter the entity's name in the comment section (please provide the name of the organization, trade association, group, or committee, rather than the name of the individual submitter).

**Summary Consideration:**

The SDT thanks all entities for their support of other comments. With respect to Indiana’s Municipal Power Agency’s comment, all formatting issues have been corrected.

Organization	Agree	Supporting Comments of “Entity Name”
Colorado Springs Utilities	Agree	Southwest Power Pool
Georgia System Operations Corporation	Agree	Georgia Transmission Corporation
Occidental Chemical Corporation	Agree	Ingleside Cogeneration, LP
Hydro Quebec production	Agree	NPCC
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.

Organization	Agree	Supporting Comments of "Entity Name"
Minnkota Power Cooperative		MRO's NERC Standards Review Forum (NSRF)

1. The SDT has proposed the following key revisions to FAC-001-2:
  - Revised the title and purpose to reflect the language in the requirements.
  - Removed the reference in R1 to: “...compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements” because it is redundant with FAC-002, R1.2.
  - Moved all of the subparts in R3, except for R3.1 and R3.2, and to the Guidelines and Technical Basis section. The SDT wants to provide entities with the flexibility to determine the Facility interconnection requirements that are technically appropriate for their respective Facilities. Including them as subparts of R3 was deemed too prescriptive, as frequently some items in the list will not apply to all applicable entities – and some applicable entities will have requirements that expand upon the list. The Guidelines should be used as a starting point for each Transmission Owner and applicable Generator Owner to consider in the development of Facility interconnection requirements.
  - Modified R3 to ensure that the impact on third parties is appropriately addressed.
  - Retired R4.
  - Updated all compliance elements: updated the Measures to add examples of acceptable evidence; modified the VSLs for conformance with the updated requirement language; modified the VRFs for conformance with NERC’s VRF guidelines; added Time Horizons to each requirement

#### Summary Consideration:

Below, the SDT has provided responses to the comments related to FAC-001-2. Where possible, it has grouped similar comments and responded to them together.

**Some commenters continue to believe that FAC-001 and FAC-002 are not necessary because their content is covered by FERC tariffs or other regulations.** With the support of NERC staff, the SDT stands by its position on the “redundancy” of FAC-001 and FAC-002 with respect to existing FERC regulations. While there might seem to be redundancy from the perspective of entities that already comply with similar regulations, not every entity is subject to these other regulations. Tariffs are transactional in nature; the NERC standards are complementary and cover the same topics from a *reliability* perspective. The standards don’t dismiss existing regulations. They acknowledge that those requirements exist, but as previously discussed, the requirement for Open Access Transmission Tariffs (OATTS) varies from region to region and cannot provide the same continent-wide consistency that NERC standards can and must provide. So although Facility connection requirements for public utilities are typically covered in 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). Further, 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. Ultimately, the SDT



agreed that Facility interconnection requirements are necessary for reliability and should continue to be explicitly addressed in NERC standards.

**Some commenters disagreed with the SDT's logic for using "Facilities" rather than "entities" in the Purpose.** The SDT changed "Facilities" to "entities" per stakeholder comments that "Facilities" do not seek interconnection. While the SDT originally used "Facilities" for interconnections that involve non-NERC entities, in keeping with the logic of the Project 2010-07 – Generator Requirements at the Transmission Interface drafting team, it believes that the undefined term "entities" is broad enough to account for a variety of interconnections.

**Some commenters suggested that "to conduct a study on" be changed back to "evaluate" in the Applicability section.** The SDT continues to prefer "to conduct a study" to "evaluate" in part because it is narrower; the Project 2010-07 – Generator Requirements at the Transmission Interface drafting team intended for the trigger for FAC-001's application to Generator Owners to be as specific as possible, and the trigger of an Agreement *to conduct a study* is more specific. This language does not preclude a Generator Owner from including other items in its Agreement, nor does it prevent the Generator Owner from conducting higher level evaluations before it determines to enter into an Agreement to conduct a study.

**Some commenters suggested language changes to the Purpose section** that are no longer applicable because, in response to other comments, the SDT is changing "Facilities" to "entities."

**Some commenters suggested capitalizing "Applicable Generator Owner" throughout the standard.** The SDT does not believe it is necessary to capitalize "Applicable," as the meaning of "applicable Generator Owner" is made clear in the Applicability section, and "Applicable Generator Owner" is not a NERC-defined glossary term.

**Some commenters were confused about the reference to the reliability principles in the Background section of FAC-001 and FAC-002.** Because many commenters were confused about the reference to the reliability principles (which are referenced in the NERC [Standard Processes Manual](#) and posted as [a resource document](#) on NERC's [Standards Resources](#) page), the drafting team has deleted that sentence from the Background section. Without the section about the reliability principles, the Background too similar to the Purpose to add value, so the Background has been deleted.

**Some commenters encouraged the SDT to modify the "make available upon request language" language, such as by adding a time frame or changing it to "make available upon written request."** The SDT does not believe it is necessary to add specificity to "make them available upon request." That phrase replaces "publish," and was added to account for entities that do not wish to post their Facility interconnection requirements on a public website; the SDT understands that most entities do make their interconnection requirements public. The SDT intends for the provision of the requirements to be relatively immediate. **One commenter suggested a language change to acknowledge that an**

**interconnecting entity might not know to request interconnection requirements.** If an entity is seeking to interconnect to a Transmission Owner or applicable Generator Owner, that entity will have to communicate with that Transmission Owner or applicable Generator Owner, and the Transmission Owner or applicable Generator Owner would logically communicate about the existence of interconnection requirements in the case that the entity seeking to interconnect did not know that they existed.

**Some commenters encouraged adding requirements for end-user Facilities, similar to the requirements for Generator Owners.** End-user Facilities are included in the standard because Transmission Owners have an obligation to develop Facility interconnection requirements for this type of interconnection. The end-user Facilities have no obligation under the standard and thus do not need to be added to the Applicability section, nor do they need to be added to R3. The SDT is confident that if a Distribution Provider or Load-Serving Entity received an interconnection request at the Bulk Electric System Level, then it is likely that the Distribution Provider or Load-Serving Entity is already registered as a Generator Owner or Transmission Owner, and thus FAC-001 and FAC-002 would apply. However, it is more likely that if a Facility is interconnecting to a Distribution Provider or a Load-Serving Entity, the interconnection will not implicate the Bulk Electric System and thus this standard need not address it.

**Some commenters suggested removing “fully” from R2.** “Full” execution of an agreement makes clear that all parties involved have signed off on the specific Agreement in question. The SDT has left the R2 language as is, and has updated the Applicability section to state “fully executed” for consistency.

**Some commenters recommended clarifying the “days” in R2.** The SDT intended for “45 days” to mean 45 calendar days (as indicated by the use of “calendar days” in the corresponding VSLs) and has modified the standard accordingly.

**Some commenters suggested more clearly defining the term “applicable Generator Owner.”** “Applicable Generator Owner” is not a defined term, but rather a subset of Generator Owners carved out so that FAC-001-2 applies to them in specific instances. They are simply Generator Owners that have received a request to interconnect to their Facility(ies), not necessarily Generator Owners that have been deemed “Transmission Elements.”

**Some commenters did not agree with the use of “materially modified” in R3, and/or questioned what it means.** Part 3.2 (then R3.1.2) already references “modified Facilities” in the currently enforceable version of FAC-001. The SDT added “materially” in response to stakeholder concern that “modified” was not clear. The SDT provided additional information in the Guidelines section to explain that the definition of “material” can be up to engineering judgment: *Entities should have documentation to supports the technical rationale for determining whether an existing interconnection was “materially modified.” Recognizing that what constitutes a “material modification” will vary from entity to entity, the intent is for this determination to be based on engineering judgment.* The SDT added “materially modified” to Part 3.1 for

consistency. The expression could mean the partial or complete retirement of any generation, transmission, or distribution interconnection Facilities taking place outside the usual planning process (if a Transmission Owner deemed those changes to constitute material modifications).

**Some commenters preferred “interconnected transmission system(s)” to “affected system(s).”** The SDT chose to use “affected” instead of “interconnected” because an interconnection could impact other systems that may not be physically interconnected to the system in question. The SDT chose to eliminate “transmission” because the studies should consider the impact on more than just the transmission system – impacts could include impacts on the electric system more generally.

**Some commenters expressed concern about the roles of the Transmission Owner, Transmission Planner, and Planning Coordinator, especially when these three are not the same entity.** The Transmission Owner has to address the procedures for coordinated studies in FAC-001, R3, but the onus is on the Transmission Planner and Planning Coordinator in FAC-002 to actually conduct those studies, which includes studying the impact on affected system(s) in FAC-002, R1, Part 1.1, along with a requirement that the study results be evaluated and coordinated by all entities involved (which would include the Transmission Owner) in FAC-002, R1, Part 1.4. The Transmission Owner must include these procedures in its Facility interconnection requirements so that the interconnecting entity is aware of the steps required before interconnection. While there is no explicit requirement that the Transmission Owner develop its procedures for coordinated studies in conjunction with the Transmission Planner and Planning Coordinator, the SDT does not know what other procedures would be documented if not those directed by the Transmission Planner or Planning Coordinator (in cases where these entities are not the same as the Transmission Owner).

**Some commenters noted that a Transmission Owner or applicable Generator Owner cannot compel other entities to comply with all applicable NERC Reliability Standards.** The SDT agrees that a Transmission Owner or applicable Generator Owner cannot compel another entity to comply with NERC’s standards and that they can only give the other entities a list of Facility interconnection requirements that will ensure reliability once the interconnection is made. Thus, upon further review, the last sentence of the Guidelines and Technical Basis section has been deleted, as it was determined to be meaningless.

**One commenter suggested that the Purpose statement be modified to reference the BES.** While all NERC standards only apply to the BES unless otherwise noted, the SDT agrees that a reference to BES should be added to the FAC-001 Purpose statement for consistency with FAC-002.

**One commenter suggested changing the reference to “connection” in the Purpose to “interconnection,” for consistency.** The SDT agrees and made the change.

**One commenter noted that capitalizing “Interconnection” in the title and using “interconnection” throughout the standard is confusing because “Interconnection” is a different NERC-defined term.** The SDT notes “Interconnection” is only capitalized in the title of the standard. When “interconnection” is used as a lowercase term without reference to one of the four major Interconnections, the SDT believes it is clear that the reference has nothing to do with the NERC Glossary term “Interconnection.”

**One commenter suggested that the Purpose be modified to reference reliability and to broaden the Purpose to account for possible requirements related to paying for studies, advance funding, etc.** The SDT has revised the Purpose statement to reference reliability, but has not extended the scope of the standard to address funding responsibilities.

**One commenter recommended carving out a subset of small non-jurisdictional Transmission Owners in the Applicability section in the same way that the SDT carved out a subset of applicable Generator Owners.** The drafting team does not believe this is appropriate. Whether a tariff applies to a Transmission Owner does not impact whether it should be included under this standard, and unless NERC’s Risk-Based Registration efforts conclude that subsets of smaller Transmission Owners should be eliminated from standards like this one, the SDT believes that it is appropriate to apply FAC-001 and FAC-002 to all Transmission Owners.

**One commenter suggested combining FAC-001 and FAC-002.** The SDT continues to believe that it makes more sense to keep the standards separate, as the entities to which each standard is applicable are different. Combining them could lead to confusion.

**One commenter expressed concern about how privately or cooperative-owned transmission lines are to be addressed in FAC-002.** All entities, whether OATT or non-OATT, would be treated the same under Section 215, and the SDT believes this is a misunderstanding of the FERC regulations.

**One commenter suggested that FAC-001 address specialized requirements resulting from BES Inclusion I4.** The SDT notes that entities that need to specially account for dispersed power producing resources should address them in their interconnection requirements. NERC requirements are to be neutral with respect to technology.

**One commenter suggested revising the Purpose to specifically reference materially modified Facilities.** While the SDT agrees that it’s important for FAC-001 and FAC-002 to address materially modified existing interconnections, the SDT believes that the purpose statement is broad enough to account for both new and modified Facilities, as further specified in the actual requirements.

**One commenter suggested modifying the Applicability section to make the description of an “applicable Generator Owner” part of the main description of Generator Owner.** The SDT thinks this suggested change is a matter of preference but has the same impact as the current language, so it has elected to leave the language as is.

**One commenter suggested adding Planning Coordinator and Transmission Planner to the Applicability section of FAC-001.** The responsibility for documenting Facility interconnection requirements lies with the owner of the Facilities accepting an interconnection, specifically in cases where the Transmission Owner may not be the same entity as the Planning Coordinator or Transmission Planner.

**One commenter suggested adding Distribution Providers to the Applicability section of the standard to encompass requirements for end-user Facilities.** End-user Facilities are included in the standard because Transmission Owners have an obligation to develop Facility interconnection requirements for this type of interconnection. The end-user Facilities have no obligation under the standard and thus do not need to be added to the Applicability section.

**One commenter suggested deleting some multiple references of “interconnection requirements” and “Facilities” in FAC-001-, R1.** The SDT discussed this comment but thinks that the second sentence is clearer as written.

**One commenter asked to whom the TO and GO are supposed to make their Facility interconnection requirements available.** The SDT intends for the Transmission Owner and applicable Generator Owner to provide the Facility interconnection requirements to any party that requests them. The standard originally required that interconnection requirements be published, and the SDT modified the standard to incorporate the entities that may not wish to publish their interconnection requirements in the absence of a request (though the SDT understands that most Facility interconnection requirements are made public anyway).

**One commenter stated that the requirement to “update as needed” is non-substantive and is captured in the requirement to document interconnection requirements.** The SDT does not believe that updating is inherently captured in “documenting.” Without the requirement to update as needed, a Transmission Owner could document its Facility interconnection requirements and never touch them again, ignoring changes that might impact the interconnection requirements.

**One commenter suggested that a reference to “materially modified Facilities” be incorporated into the requirements for applicable Generator Owners.** A Generator Owner would not ever have to determine whether modification to an existing interconnected Facility counts as a “material modification.” If a Generator Owner interconnects a Facility (after complying with R2), it needs to register as a Transmission Owner and is then subject to R1. The SDT has developed an R4 that applies specifically to applicable Generator Owners to make this distinction clear.

**One commenter asked for clarification that end-user Facilities includes large wholesale customer interconnections as well as Distribution Provider system interconnections.** “End-user Facilities” is intended to account for any Facilities that do not qualify as transmission Facilities or generation Facilities under R1, Part 1.1 or 1.2.

**One commenter stated that “coordinated” in R3 is ambiguous.** The requirement used to say “jointly coordinated studies” and while the SDT believed that “jointly” and “coordinated” were redundant, it does not believe that “coordinated” is ambiguous. “Coordinated” studies would simply be studies that were reviewed by all parties involved; the level of participation could vary. Evidence could be email or call logs indicating that all parties were contacted and aware that the studies were being conducted.

**One commenter suggested keeping five of the former sub-parts of R3 in the requirement.** The SDT believes that all Parts except the original R3.1.1 and R3.1.2 are too prescriptive to include in a standard. Some of the original Parts in R3 are relevant for certain entities but not others, and to select any subgroup of the original Parts and eliminate others presumes a one-size-fits-all approach that is not appropriate for this standard. Facility interconnection requirements are inherently inconsistent, and the proposed FAC-001-2 acknowledges that, while offering guidance (in the Guidelines and Technical Basis section) on the elements that should be considered for inclusion in Facility interconnection requirements.

**One commenter suggested specific rewording R3, Parts 3.1 and 3.2 to “Procedures for coordinating studies with affected entities of the impact of new or materially modified Facilities” and “Procedures for notifying those responsible for the reliability of affected system(s) of the impact of new or materially modified Facilities.”** The SDT believes that the change to 3.1 would change the meaning of Part 3.1 and has not adopted the suggested change. The SDT believes that the proposed clarification for 3.2 makes Part 3.2 clearer while maintaining the original intent, and has made the change.

**One commenter noted that in R3, Part 3.2, “those responsible for the reliability of the interconnected affected Transmission system(s)” is vague.** The language is purposefully broad to account for the fact that the NERC Registered Entity responsible for the reliability of the affected system(s) will vary from interconnection to interconnection.

**One commenter pointed out that all reference to subparts should be references to “Parts.”** The SDT agrees and has modified the standard accordingly.

**One commenter encouraged the team to add a specific reference to “Parts 3.1 to 3.2” to M3.** The SDT believes that “all requirements” in Requirement R3 necessarily includes the Parts of R3.

**One commenter suggested changes to the Time Horizons based on the definitions in the NERC Glossary.** The Time Horizons incorporated into the standard refer to Time Horizons in the compliance realm, as defined in this document: [http://www.nerc.com/pa/Stand/Resources/Documents/Time\\_Horizons.pdf](http://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf). In the compliance realm, a Long-term Planning Time Horizon is a planning horizon of one year or longer.

**One commenter suggested that three years for data retention is too long.** The SDT notes that the data retention period should be at least the length of the audit cycle, which is three years for most entities.

**One commenter suggested modifying the Guidelines and Technical Basis section to require the Transmission Owner, Transmission Planner, or Planning Coordinator to specify guidance on what constitutes a “material modification.”** The SDT is providing guidance that there should be some documented engineering basis for considering a modification “material.” If a Transmission Owner wishes to determine the materiality of a modification using specification from its Transmission Planner or Planning Coordinator, it is not precluded from doing so.

Organization	Yes or No	Question 1 Comment
Dominion	No	<p>While Dominion agrees with the revisions from a technical perspective, Dominion has the following suggestions which Dominion believe will improve clarity and increase consistency.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• In Applicability Section 4.1.2.1; suggest removing the ‘to’ in ‘conduct a study to’</li> <li>• Requirement R2 - Suggest deleting “full” in the first sentence to be consistent with Applicability Section 4.1.2.1.</li> <li>• 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</li> </ul>

Organization	Yes or No	Question 1 Comment
		<p>Facility interconnection requirements. It is the obligation of the owner and operator of the interconnecting Facility to comply with all applicable NERC Reliability Standards.</p>
<p>Northeast Power Coordinating Council</p>	<p>No</p>	<p>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.</p> <ul style="list-style-type: none"> <li>• Requirement R2 - Suggest deleting “full” in the first sentence to be consistent with Applicability 4.1.2.1.</li> <li>• 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)”.</li> <li>• 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</li> </ul>



Organization	Yes or No	Question 1 Comment
		<p>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."</p>
NCPA Generation	No	<p>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</p>

Organization	Yes or No	Question 1 Comment
		<p>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 imitate 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 an agreement to study reliability impact on its transmission system from third party Facilities seeking interconnection to the Generator Owner’s transmission system.</p>
MRO NERC Standards Review Forum	No	<p>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</p>

Organization	Yes or No	Question 1 Comment
		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.
Florida Municipal Power Agency	No	<p>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</p>

Organization	Yes or No	Question 1 Comment
		<p>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.</p>
ACES Standards Collaborators	No	<p>(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</p>

Organization	Yes or No	Question 1 Comment
		<p>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).</p> <p>(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.</p> <p>(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</p>

Organization	Yes or No	Question 1 Comment
		<p>coordinated studies if they don't perform the studies? Please refine this part to further clarify what is actually required of the TO.</p> <p>(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.</p> <p>(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.</p>
ISO/RTO Council Standards Review Committee	No	<p>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.</p>

Organization	Yes or No	Question 1 Comment
Rayburn Country Electric Cooperative	No	<p>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.</p>
Manitoba Hydro	No	<p>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.</p>

Organization	Yes or No	Question 1 Comment
Ameren	No	<p>(1) In order to be consistent with the Draft FAC-002-2, FAC-002-1 should include the PC and TP as Functional Entities.</p> <p>(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.</p> <p>(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.</p> <p>(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.</p>
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



Organization	Yes or No	Question 1 Comment
		<p>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.</p>
<p>American Transmission Company, LLC</p>	<p>No</p>	<p>ATC requests that the SDT consider the following recommendations to improve and clarify the Standard.</p> <p>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.</p> <p>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.</p> <p>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 .....</p> <p>d. Section 4.1 (Applicability): Please add Section “4.1.3. Distribution Provider” since they would encompass the requirements for “End User Facilities”.</p> <p>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</p>

Organization	Yes or No	Question 1 Comment
		intent such that every application would need to be studied, even when study is unnecessary.
ReliabilityFirst	No	<p>ReliabilityFirst Abstains and offers the following comments for consideration:</p> <ol style="list-style-type: none"> <li>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...”</li> <li>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.</li> <li>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.</li> <li>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.”</li> <li>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...”</li> </ol>

Organization	Yes or No	Question 1 Comment
		<p>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.</p> <p>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.</p> <p>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:</p> <ul style="list-style-type: none"> <li>a. 3.1.3. Voltage level and MW and MVAR capacity or demand at point of connection.</li> <li>b. 3.1.5. System protection and coordination.</li> <li>c. 3.1.9. Voltage, Reactive Power, and power factor control.</li> <li>d. 3.1.11. Equipment Ratings.</li> <li>e. 3.1.16. Communications and procedures during normal and emergency operating conditions.</li> </ul>

Organization	Yes or No	Question 1 Comment
Minnkota Power Cooperative	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?
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.

Organization	Yes or No	Question 1 Comment
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...”
FirstEnergy	Yes	
Tennessee Valley Authority	Yes	<p>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).</p> <p>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...”.</p> <p>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</p>

Organization	Yes or No	Question 1 Comment
		coordinated studies in conjunction with the Transmission Planner and Planning Coordinator who will be performing those studies.
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."
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	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.
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.
Arizona Public Service Company	Yes	
SPP Standards Review Group	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.

Organization	Yes or No	Question 1 Comment
		<p>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.</p>
Dynergy	Yes	
Lincoln Electric System	Yes	<p>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.</p>
Ingleside Cogeneration LP	Yes	<p>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</p>

Organization	Yes or No	Question 1 Comment
		<p>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.</p>
Independent Electricity System Operator	Yes	
Pepco Holdings Inc.	Yes	
Xcel Energy	Yes	<p>In general, we agree with the revisions and believe that work is moving the standard in the proper direction.</p>
Virginia State Corporation Commission (member, Operating Committee)	Yes	<p>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....."</p>
Kansas City Power & Light	Yes	



Organization	Yes or No	Question 1 Comment
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."
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."
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

Organization	Yes or No	Question 1 Comment
		systems. Requirement:R.1 Propose the SDT change “make them available upon request” to “make them available upon written request”.
Oncor Electric Delivery	Yes	
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.
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.”
Northeast Utilities	Yes	suggest capitalizing “Applicable Generator Owner” throughout the standard (background and requirements)
Hydro One	Yes	
City of Tacoma - Tacoma Power	Yes	
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.

Organization	Yes or No	Question 1 Comment
Colorado Springs Utilities		
DTE Electric		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.

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

#### Summary Consideration:

Below, the SDT has provided responses to the comments related to FAC-002-2. Where possible, it has grouped similar comments and responded to them together.

**Some commenters continue to believe that FAC-001 and FAC-002 are not necessary because their content is covered by FERC tariffs or other regulations.** With the support of NERC staff, the SDT stands by its position on the “redundancy” of FAC-001 and FAC-002 with respect to existing FERC regulations. While there might seem to be redundancy from the perspective of entities that already comply with similar regulations, not every entity is subject to these other regulations. Tariffs are transactional in nature; the NERC standards are complementary and cover the same topics from a *reliability* perspective. The standards don’t dismiss existing regulations. The standards acknowledge that those requirements exist, but as previously discussed, the requirement for Open Access Transmission Tariffs varies from region to region and cannot provide the same continent-wide consistency that NERC standards can and must provide. So although Facility connection requirements for public utilities are typically covered in 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). Further, 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. Ultimately, the SDT agreed that Facility interconnection requirements are necessary for reliability and should continue to be explicitly addressed in NERC standards. **One commenter stated that the standard requirements would already be met, under their own tariff, by the time that the entity commits to construction of Facilities.** If an entity has already completed the

coordination and studies steps by the time of commitment to construct, then both the NERC Reliability Standard, and, presumably, the Pro Forma Generator Interconnection rules will have been satisfied. The SDT does not believe this renders the standard moot, but rather indicates that the standard is complementary with the FERC rules.

**Some commenters suggested modifications to the Purpose statement.** The SDT revised the Purpose statement to focus on the goal of studying the impact of interconnections rather focusing on the content of the requirements. The SDT agrees with some commenters that focusing on the goal of studying the impact of interconnections is a more appropriate way to word the higher-level Purpose than to focus on the content of the requirements.

**Some commenters expressed concern about the addition of the reference to “material modification” and requested that the phrase be removed or clarified.** The SDT clarifies that the phrase could mean the partial or complete retirement of any generation, transmission, or distribution interconnection facilities taking place outside the usual planning processes (if a Transmission Owner deemed those changes to constitute material modifications). The addition of the word “materially” is intended to allow entities to use engineering judgment to determine what constitutes a material modification for their system. The SDT added “materially” in response to stakeholder concern that “modified” was not clear. The SDT provided additional information in the Guidelines section to explain that the definition of “material” can be up to engineering judgment: *Entities should have documentation to supports the technical rationale for determining whether an existing interconnection was “materially modified.” Recognizing that what constitutes a “material modification” will vary from entity to entity, the intent is for this determination to be based on engineering judgment.* While both new and modified interconnections that are planned in advance might apply under the TPL standards instead, FAC-001 and FAC-002 address the cases where a new interconnection or modification to an existing interconnection is pursued or proposed outside those longer-term TPL planning processes.

**Some commenters preferred the term “assessment” to “studies.”** The SDT believes that “studies” and “assessments” are almost interchangeable, but recognizes that “studies” can imply the performance of simulations, and can preclude the assessment of existing studies or data. The SDT has clarified the language in R1 to use the verb “study” rather than “conduct studies,” allowing for the assessment of existing studies or data in the case of some of the Parts of R1.

**Some commenters expressed confusion about the difference between “Generator Owners” and “applicable Generator Owners.”** The Generator Owner in 4.1.5 is seeking to interconnect to another Facility, while the applicable Generator Owner in 4.1.6 is accepting the interconnection of another Facility. The requirements already distinguish which apply to Generator Owners (R2) and which apply to applicable Generator Owners (now R5). The SDT does not believe it is necessary to capitalize “Applicable,” as the meaning of “applicable Generator Owner” is made clear in the Applicability section. **One commenter suggested that the SDT simply have FAC-002-2 reference the explanation of applicable Generator Owner in FAC-001-2.** Because the standard references applicable Generator Owners, as defined as a subset of

Generator Owners under FAC-001, FAC-002 needs to include applicable Generator Owners in its Applicability section. (It cannot simply reference the definition in FAC-001.) This subset was developed by the Project 2010-07—Generator Requirements at the Transmission Interface standard drafting team and was simply carried over to FAC-002.

**Some commenters were confused about the reference to the reliability principles in the Background section of FAC-001 and FAC-002.** Because many commenters were confused about the reference to the reliability principles (which are referenced in the NERC [Standard Processes Manual](#) and posted as [a resource document](#) on NERC’s [Standards Resources](#) page), the drafting team has deleted that sentence from the Background section. Without the section about the reliability principles, the Background too similar to the Purpose to add value, so the Background has been deleted.

**The SDT received many comments suggesting changes to R1 and its Parts.** The SDT did not make any substantive changes to R1 or the list of Parts, but it did make some commenter-suggested changes for clarity.

- **One commenter suggested adding “and coordinate” to the main part of R1.** In order to study the reliability impact of an interconnection, the Planning Coordinator or Transmission Planner necessarily has to coordinate with the other entities to which this standard is applicable. Those entities are in turn required to coordinate and cooperate with the Planning Coordinator or Transmission Planner per R2, R3, R4, and now R5, and then R1, Part 1.4 requires the Planning Coordinator or Transmission Planner to evaluate and coordinate the studies with the entities involved.
- **Several commenters asked the SDT to resolve the Planning Coordinator/Transmission Planner “and” versus “or” terminology among R1, the other requirements, and the Measures and VSLs. One commenter asked for clarification of who leads the study when the Transmission Planner and Planning Coordinator are not the same.** The SDT intentionally maintained “and” in R1: “Each Transmission Planner and each Planning Coordinator.” This wording gives the Transmission Planner and the Planning Coordinator the flexibility to determine which entity will study the reliability impact, while 1.4 addresses the option for the entities to jointly study the reliability impact. Once the Transmission Planner and the Planning Coordinator have determined which entity will study the reliability impact, the other Applicable entities will coordinate and cooperate with either the Transmission Planner and the Planning Coordinator so the remaining requirements say “Transmission Planner or Planning Coordinator,” and both the Measure and the VSL language use “or.”
- **One commenter suggested that the Parts are duplicative, particularly the main requirement and Part 1.1.** The SDT does not agree that the Parts are duplicative. In Part 1.1, the Planning Coordinator or Transmission Planner is required to evaluate the reliability impact of the Facility *on the affected system(s)*. R1 is written as an umbrella requirement that includes both the Planning Coordinator or Transmission Planner’s system and affected system(s). This allows for the inclusion of Part 1.1, which emphasizes the requirement to evaluate the impact on

- affected system(s) and is distinct from the other Parts. (In other words, in Part 1.1., the Transmission Planner or Planning Coordinator may be conducting the same evaluations or studies as in 1.2, 1.3, or 1.4, but the distinction is that 1.1 focuses on affected system(s).)
- **One commenter said that R1 is not needed and that the Planning Coordinator and Transmission Planner should not coordinate studies.** The SDT disagrees with the commenter. This is a planning function and according to the NERC Functional Model, would fall to the Planning Coordinator and Transmission Planner, who serve in the reliability and transmission planning functions, respectively. The standard does not duplicate the TPL standard. The assessment requirement in FAC-002 is distinct from the TPL requirements; a Planning Assessment under TPL would be for *existing* Facilities or longer term plans for modifications, whereas FAC-002 requires a similar kind of assessment to TPL, but it is an assessment for new or materially modified interconnected Facilities that may or may not end up interconnecting or upgrading. Once the Facilities are interconnected, they would be covered under the TPL standards, but until then, the potential impact is evaluated under FAC-002. Considerations for new or materially modified interconnections can only be included in TPL sensitivity studies after they have gone through FAC-002 assessments and it has been determined that the interconnections will actually take place.
  - **One commenter stated the obligation to assess and demonstrate reliability impact and performance on affected system(s) should be placed on the Transmission Owner or Transmission Planner of the affected system(s).** The SDT agrees that the obligation to assess and demonstrate reliability impact and performance is on the entities of the affected system(s), but the Planning Coordinator or Transmission Planner can study the impact on the affected system(s), which is what the standard requires.
  - **One commenter asked for clarification that the Transmission Planner and Planning Coordinator only needs to study its own area.** The Functional Model limits the Transmission Planner and Planning Coordinator to actions within their own areas. Planning Coordinator is defined as “the functional entity that coordinates, facilitates, integrates and evaluates (generally one year and beyond) transmission facility and service plans, and resource plans *within a Planning Coordinator area...*” and a Transmission Planner is defined as “the functional entity that develops a long-term (generally one year and beyond) plan for the reliability (adequacy) of the interconnected bulk electric transmission systems *within a Transmission Planner area.*”
  - **One commenter suggested that R1 require notifying the Reliability Coordinator of the study results.** R3, Part 3.2 in FAC-001, which addresses procedures for notifying those responsible for reliability of the new or modified Facilities, is purposefully broad to account for the fact that the NERC Registered Entity responsible for the reliability of the affected system(s) will vary from interconnection to interconnection. This may include the Reliability Coordinator, the Planning Coordinator, etc.

- **Some commenters preferred “interconnected [transmission] systems” to “affected systems.”** The SDT chose to use “affected” instead of “interconnected” because an interconnection could impact other systems that may not be physically interconnected to the system in question. The SDT chose to eliminate “transmission” because the studies should consider the impact on more than just the transmission system – impacts could include impacts generally on the electric system.
- **One commenter asked for clarification of the meaning of “impact of the new or materially modified Facilities on affected system(s).”** The SDT believes that “affected system(s)” can and does encompass the impact of new or materially modified interconnections within an entity’s system, between different entities’ systems, or on any affected system(s).
- **Some commenters were concerned about the use of the term “compliance” in Part 1.2.** The SDT agrees that “compliance” has a specific connotation in the NERC environment and that the standard should not give the impression that the Planning Coordinator or Transmission Planner is responsible for the interconnecting entity’s future compliance with NERC Standards. The SDT has revised the standard to say that the Transmission Planner or Planning Coordinator “shall study the reliability impact of: (i) interconnecting new generation, transmission, or electricity end-user Facilities and (ii) materially modifying existing interconnections of generation, transmission, or electricity end-user Facilities,” including “...adherence with applicable NERC Reliability Standards...” The SDT believes this modification retains the original intended meaning – that the Transmission Planner or Planning Coordinator should consider all applicable NERC Reliability Standards as it studies a possible new interconnection or material modification to an existing interconnection– but reflects the fact that the entities cannot actually enforce another entity’s future compliance with the Reliability Standards.
- **Several commenters suggested changes to Part 1.2, suggesting that criteria be added or removed.** The SDT thinks the current list (NERC Reliability Standards, regional and Transmission Owner planning criteria, and Facility interconnection requirements) encompasses all elements that should be considered. The SDT uses “regional...planning criteria” to encompass Regional Entity criteria, local regulations, Planning Coordinator criteria, and other planning criteria, to which an entity may be subject, apart from more localized Transmission Owner planning criteria.
- **One commenter asked for clarification regarding which Transmission Owner’s planning criteria is applicable in Part 1.2.** The Transmission Owner planning criteria in 1.2 refers to the Transmission Owner that receives the interconnection request, however, it may be necessary to consider an affected system Transmission Owner’s planning criteria as “regional” planning criteria.
- **One commenter suggested eliminating the words “Evaluation of...”** The SDT agreed that this phrase was redundant.



- **One commenter suggested restoring the reference to TPL standards in Part 1.2.** TPL standards are encompassed by Part 1.2, which states the requirement to study adherence to applicable NERC Reliability Standards. To directly reference another NERC Reliability Standard in FAC-002 would be inappropriate, given that the TPL standards – and even the organization of the NERC standard families – could change.
- **One commenter stated that Part 1.4 is administrative and vague, in large part because the requirement to coordinate recommendations is unclear.** The recommendations are to be coordinated with the affected system(s), depending on the circumstances of the interconnection. Coordination is demonstrable with emails and other documentation that indicates that all parties to an interconnection evaluated the results of the studies.
- **One commenter asked for clarification of what “alternatives considered” means in R1.4.** Similar to the “alternatives evaluated” language in TPL-001-4, “alternatives considered” is intentionally broad to allow for different interpretations from different entities based on the specifics of their systems.
- **One commenter said that Part 1.4 was focused on documentation and could be deleted and did not properly distinguish between the assessment and resulting report.** The SDT had deleted phrases like “Evidence that...” in the other Parts, and it has deleted “Documentation that...” in 1.4. The main focus of Part 1.4 is not documenting the items in 1.4; rather, the objective is to ensure that the Transmission Planner or Planning Coordinator include study assumptions, system performance, alternatives considered, and coordinated recommendations in the studies.

**Some commenters requested clarification of the meaning of and distinction between “coordinate” and “cooperate.”** The SDT discussed whether “coordinate” and “cooperate” are appropriately measurable. The SDT agrees that the terms “coordinate” and “cooperate” encompass data provision; however, the terms further express the broader requirement that entities interact with one another in a productive way. The SDT has modified the language of the proposed R2-R4 to add detail (“including but not limited to the provision of data”) regarding the meaning of coordination and cooperation. The requirement, however, may also be satisfied with evidence of in-person and web- or phone-based meetings (“coordination and cooperation”) among involved entities, or other evidence. When an entity coordinates a study, it is taking the lead on organizing and completing that study, and when an entity cooperates, it is following the lead of another coordinating entity.

**Some commenters did not agree with the reference to providing data in R2, R3, and R4.** The SDT has modified the main part of R1 to require the Transmission Planner and Planning Coordinator “study” rather than “conduct studies,” recognizing that not all of the R1 Parts require formal studies. The SDT is confident that the proposed R2-R5 (formerly R2-R4) language is appropriate. The data supplied by the entities in R2-R5 will be useful to the Transmission Planner or Planning Coordinator when conducting discrete studies, and will also assist the Transmission Planner or Planning

Coordinator evaluating adherence to NERC Reliability Standards, regional and Transmission Owner planning criteria, and Facility interconnection requirements. The reference to data in R2-R5 specifies the most likely method of cooperation and coordination – providing data – in an effort to provide specificity in the requirements, while maintaining flexibility since the provision of data is not the only manner in which entities may coordinate and cooperate.

**One commenter identified a gap in the standard because it “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.”** The SDT believes that this is an issue that exists outside the specifics of FAC-001 and FAC-002. NERC cannot require prospective registration – an entity cannot be registered until it has interconnected to the Bulk Electric System – but that does not mean NERC should not require already registered entities to coordinate and cooperate when they participate in an interconnection or material modification to an existing interconnected Facility.

**One commenter recommended that the standard only apply to the entity that has the tariff.** The SDT maintains that it is essential to apply the standard to both the planning entities and the entities seeking to interconnect so that the entities seeking to interconnect have an obligation to cooperate on the Planning Coordinator and Transmission Planner’s studies (including but not limited to the provision of data as requested by the planning entities). This requirement is in the currently enforceable version of FAC-002, and while the SDT has broken the original requirement into multiple requirements, it continues to support the intent of the currently enforceable version of FAC-002.

**One commenter suggested that R2 and R3 be combined.** While the SDT acknowledges that R2 and R3 *could* be combined, the SDT chose to write two requirements to make the obligations of those entities seeking to interconnect generation Facilities separate from the obligations of those entities seeking to interconnect transmission Facilities or electricity end-user Facilities. The SDT does not believe that the studies required by FAC-002 duplicate the requirements of the FERC Open Access Transmission Tariff. If a Generator Interconnection Study was conducted to satisfy the OATT, that study should satisfy the requirements of FAC-002 as well.

**One commenter suggested a clarification to acknowledge the Planning Coordinator’s responsibility to coordinate the impact on affected systems.** The SDT points out that R1, Part 1.1 addresses the Planning Coordinator or Transmission Owner’s requirement to study “the reliability impact of the new interconnection, or materially modified existing interconnection, on affected system(s).”

**One commenter asked for verification that the standard will not impact the Transmission Planner’s processes.** The SDT does not intend to impact the process as required by an entity’s Open Access Transmission Tariff. The standard should be

complementary to an entity's OATT; however, the SDT cannot verify that the standard will not impact an existing Transmission Planner's processes without being familiar with the applicable OATT.

**One commenter noted that FAC-002's Purpose references the BES, while FAC-001's Purpose does not.** Though all NERC Reliability Standards are applicable to the BES, the SDT has added a reference to BES to the FAC-001-2 purpose statement for clarification and consistency with the Purpose statement for FAC-002.

**One commenter suggested that the SDT reconsider the use of the defined term "Facility."** The SDT notes that NERC Reliability Standards are concerned with the Bulk Electric System, and so it is appropriate to use the defined term "Facility," which is limited to Bulk Electric System elements. The standard does not preclude entities from studying the interconnection of (lowercase 'f,' non-BES) facilities.

**One commenter suggested modifying the Applicability section to make the description of an "applicable Generator Owner" part of the main description of Generator Owner.** The SDT thinks this suggested change is a matter of preference but has the same impact as the current language, so it has elected to leave the language as is.

**One commenter suggested changing "Planning Coordinator" to "Transmission Planning Coordinator."** "Transmission Planning Coordinator" is not a NERC Functional Entity, and NERC Reliability Standards must apply to Functional Entities (or subsets of those entities).

**One commenter suggested changing "integrating" to "interconnecting" in R1, for consistency with the language throughout the standard.** The SDT agrees and has made the change.

**One commenter noted that R2, R3, and R4 are administrative and duplicative with other regulations and standards.** The SDT maintains that it's essential to apply the standard to both the planning entities and the entities seeking to interconnect so that the entities seeking to interconnect have an obligation to cooperate on the Planning Coordinator and Transmission Planner's studies (including but not limited to the provision of data as requested by the planning entities). As explained throughout the development process, the SDT is confident that the standards are not redundant, but rather, complement FERC regulations. While other standards may address advanced planning for both new and modified Facilities, FAC-001 and FAC-002 focus on new interconnections or modifications to existing interconnections when they are pursued or proposed outside longer-term planning processes. The standard does not duplicate other standards. Other standards address requirements for *existing* Facilities or longer term plans for modifications, whereas FAC-002 is an assessment for new or materially modified interconnections that are proposed and ultimately may not interconnect or upgrade. Upon interconnection, Facilities are subject to other NERC standards, however, prior to interconnection the potential impact of those Facilities must be evaluated under FAC-002.

**One commenter stated that R2, R3, and R4 are redundant.** The SDT is attempting to distinguish the entities in R2 and R3 based on the kinds of Facilities that the entities own. The Generator Owners in R2 and R5 (which used to be in R4) are distinguishable from one another: The Generator Owner in R2 is seeking to interconnect to another Facility, while the *applicable* Generator Owner in R5 is accepting the interconnection of another Facility.

**One commenter suggested adding “materially modify” to R2, R3, and R4 for consistency with R1.** The SDT agrees and has modified the requirements accordingly.

**One commenter suggested adding “appropriate” after “its” in R2.** The SDT believes that what constitutes “its [appropriate] Transmission Planner or Planning Coordinator” will be clear based on the interconnection that’s being studied.

**One commenter suggested changing R2 to reference “Applicable Generator Owner” and describe the responsibility of who initiates and consummates the agreement for the interconnection study with the Planning Coordinator or Transmission Planner.** The Generator Owner in R2 is seeking to interconnect to another Facility. If the commenter is referring to the applicable Generator Owner addressed in R4, the initiation and consummation of an Agreement could change from case to case. Nevertheless, the applicable Generator Owner could, for example, execute an Agreement with the party seeking to interconnect to its Facility, and would coordinate on the interconnection studies with the Planning Coordinator or Transmission Planner.

**One commenter expressed concern that the FAC-002 revisions would lack clarity when the Transmission Owner, Transmission Planner, and Planning Coordinator are not the same entity, in part because there is no specific requirement for the Transmission Owner to identify the Transmission Planner or Planning Coordinator with whom the interconnecting entity should work on the studies.** FAC-001, R3 and now R4 already require Transmission Owners and applicable Generator Owners to include procedures for coordinated studies under FAC-002, as well as procedures for notifying those responsible for the affected system(s), in their Facility interconnection requirements. These procedures should include information about with whom the interconnecting entities need to work on the studies.

**One commenter suggested removing Load-Serving Entity from R3 because it is redundant with the inclusion of Distribution Provider.** Although there is significant overlap between Load-Serving Entities and Distribution Providers, an entity may only be required to register as a Load-Serving Entity, therefore, it is necessary to identify both Load-Serving Entities and Distribution Providers in this standard.

**One commenter suggested revising R3 and R4 to capture the allowance in Part 1.4 for studies to be conducted by a single entity, and suggested combining the R3 and R4 requirements for Transmission Owners.** The SDT believes that R3 and R4, as written, account for the possibility that the studies may be conducted by a single entity. The Transmission

Owners are distinguishable from one another, in that, the Transmission Owner in R3 is seeking to interconnect to another Facility, while the Transmission Owner in R4 is accepting the interconnection of another Facility.

**One commenter suggested revision to FAC-002 to facilitate adding smaller end-user loads.** The SDT is confident that FAC-002 is written broadly enough to allow entities to address smaller loads on their specific systems appropriately.

**One commenter stated that the applicable Generator Owner requirement (now R5; previously R4) does not align with changes in FAC-001-2, and doesn't imply that the applicable Generator Owner will be performing studies like the Transmission Planner or Planning Coordinator are in R1.** The SDT is confident that the addition of applicable Generator Owner in FAC-002-2 ensures alignment with FAC-001-2. The SDT does not anticipate that the Generator Owner will perform studies such as those conducted by the Transmission Planner and Planning Coordinator under R1.

**One commenter suggested that R4 (now R5) become R1 to better bridge FAC-001 and FAC-002.** The SDT considers it necessary to the understanding of the remaining requirements for R1 to precede R2-R5.

**One commenter suggested adding Distribution Providers and Load-Serving Entities to the R4 (now R5).** The SDT is confident that if the interconnection request implicates the Bulk Electric System, then it is likely that the Distribution Provider or Load-Serving Entity is already registered as a Generator Owner or Transmission Owner, and thus FAC-001 and FAC-002 would apply. However, it is more likely that if a Facility is interconnecting to a Distribution Provider or a Load-Serving Entity, the interconnection will not implicate the Bulk Electric System.

**One commenter suggested that "Applicable Generator Owner" be more clearly defined and suggests a revisions that incorporates a reference to "transmission elements."** "Applicable Generator Owner" is not a defined term, but rather a subset of Generator Owners carved out so that FAC-001-2 applies to them in specific instances. They are simply Generator Owners that have received a request to interconnect to their Facility, not necessarily Generator Owners that have been deemed "Transmission Elements."

**One commenter suggested modifications to the Measures.** The SDT strives to provide a sufficient level of detail in each Measure to support the intended goals of the associated Requirement.

**One commenter suggested changes to the Time Horizons based on the definitions in the NERC Glossary.** The Time Horizons incorporated into the standard refer to Time Horizons associated with compliance, as defined in this document: [http://www.nerc.com/pa/Stand/Resources/Documents/Time\\_Horizons.pdf](http://www.nerc.com/pa/Stand/Resources/Documents/Time_Horizons.pdf). For compliance purposes, a Long-term Planning Time Horizon is a planning horizon of one year or longer.

Organization	Yes or No	Question 2 Comment
Dominion	No	<p>While Dominion agrees with the revisions from a technical perspective, Dominion has the following suggestions which Dominion believe will improve clarity and increase consistency.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• 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.</li> <li>• 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).</li> </ul>

Organization	Yes or No	Question 2 Comment
<p>Northeast Power Coordinating Council</p>	<p>No</p>	<p>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</p>

Organization	Yes or No	Question 2 Comment
		<p>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:</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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</li> </ul>



Organization	Yes or No	Question 2 Comment
		<p>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.</p> <ul style="list-style-type: none"> <li>• 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.</li> <li>• 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</li> </ul>

Organization	Yes or No	Question 2 Comment
		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.
NCPA Generation	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 Facility Interconnection Studies Proposed Modification to R2:Each Applicable Generator Owner having executed an agreement from Facilities 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.
MRO NERC Standards Review Forum	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

Organization	Yes or No	Question 2 Comment
		<p>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.</p>

Organization	Yes or No	Question 2 Comment
Florida Municipal Power Agency	No	<p>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.</p>
ACES Standards Collaborators	No	<p>(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</p>

Organization	Yes or No	Question 2 Comment
		<p>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.</p> <p>(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.</p> <p>(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.</p> <p>(4) Applicability section 4.1.6.1 has a grammatically error. Remove “to” from the phrase “to on the reliability impact”.</p> <p>(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</p>

Organization	Yes or No	Question 2 Comment
		<p>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.</p> <p>(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.</p>

Organization	Yes or No	Question 2 Comment
		<p>(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.</p> <p>(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</p>

Organization	Yes or No	Question 2 Comment
		with numbers lists that must all be met referred to as parts or bulleted lists with options.
Florida Power & Light	No	<p>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.</p>
ISO/RTO Council Standards Review Committee	No	<p>Below are some comments/proposed changes for consideration:</p> <ul style="list-style-type: none"> <li>a. Applicability Section 4.1: Suggest adding Load-Serving Entity in view of the responsibility assigned to these entities in Requirement R3.</li> <li>b. Applicability Section 4.1.2: Split Transmission Planner and Transmission Owner.</li> <li>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</li> </ul>



Organization	Yes or No	Question 2 Comment
		<p>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.</p> <p>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.</p> <p>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).</p> <p>f. If the SDT should decide to retain R1, then we would suggest the following changes:</p> <p>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.</p> <p>ii. R1.1 We recommend continuing to use the original terminology of: “interconnected transmission systems” rather than “affected system(s).” The use of</p>

Organization	Yes or No	Question 2 Comment
		<p>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.</p> <p>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;</p> <p>iv. For R2-R4, should add: “or materially modify” as in “seeking to interconnect or materially modify generation Facilities”.</p> <p>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</p>

Organization	Yes or No	Question 2 Comment
		coordination and studies will have already been met making these requirements moot.
Rayburn Country Electric Cooperative	No	<p>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. FACILITYA set of electrical equipment that operates as a single Bulk Electric System Element (e.g., a line, a generator, a shunt compensator, transformer, etc.)</p> <p>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</p>
Dynergy	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.
Lincoln Electric System	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

Organization	Yes or No	Question 2 Comment
		<p>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.</p>
Manitoba Hydro	No	<p>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.</p>
Ameren	No	<p>(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</p>

Organization	Yes or No	Question 2 Comment
		technical definition, with practical examples, of what constitutes new or materially modified generator Facilities.
Independent Electricity System Operator	No	<p>We agree with most of the revisions. Below are some comments/proposed changes for consideration:</p> <p>a. Applicability Section 4.1: Suggest to add Load-Serving Entity in view of the responsibility assigned to these entities in Requirement R3.</p> <p>b. Applicability Section 4.1.2: Split Transmission Planner and Transmission Owner.</p> <p>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.</p> <p>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.</p>

Organization	Yes or No	Question 2 Comment
American Electric Power	No	<p>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.</p>
American Transmission Company, LLC	No	<p>ATC does not agree with all the revisions. ATC requests that the SDT consider the following recommendations for improvement and clarification of the Standard.</p> <p>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.</p> <p>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.”</p> <p>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</p>

Organization	Yes or No	Question 2 Comment
		<p>requirement for other TPs or PCs, but would not prevent other TPs or PCs performing studies independently or jointly if desired.</p> <p>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).”</p> <p>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”.</p> <p>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”.</p>

Organization	Yes or No	Question 2 Comment
		<p>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.”</p> <p>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”.</p>
ReliabilityFirst	No	<p>ReliabilityFirst Abstains and offers the following comments for consideration:</p> <ol style="list-style-type: none"> <li>1. General Comment - ReliabilityFirst believes the term “materially”, which is used throughout the Standard, is ambiguous and opens the requirements up to</li> </ol>



Organization	Yes or No	Question 2 Comment
		<p>unnecessary interpretation. Without further clarity and definition, this term may lead to unintended compliance complications. ReliabilityFirst recommends removing this term from the entire standard.</p> <p>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”.</p> <p>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.”</p> <p>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”</p>

Organization	Yes or No	Question 2 Comment
		<p>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.”</p> <p>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.”</p>
Idaho Power Company	No	<p>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.</p>
Minnkota Power Cooperative	No	<p>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.”</p>

Organization	Yes or No	Question 2 Comment
Southern California Edison Company	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.
Hydro One	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.
California ISO	No	<p>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:</p> <ul style="list-style-type: none"> <li>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.</li> </ul>

Organization	Yes or No	Question 2 Comment
		<ul style="list-style-type: none"> <li>• 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]</li> <li>• 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.</li> <li>• 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).”</li> <li>• 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;</li> <li>• For R2-R4, should add: “or materially modify” as in “seeking to interconnect or materially modify generation Facilities”</li> <li>• 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.</li> </ul>

Organization	Yes or No	Question 2 Comment
PacifiCorp	Yes	
FirstEnergy	Yes	
Tennessee Valley Authority	Yes	<p>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.</p>
Duke Energy	Yes	<p>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 Coordinator4.1.2 Transmission Planner 4.1.3Transmission</p>

Organization	Yes or No	Question 2 Comment
		<p>Owner4.1.4 Distribution Provider4.1.5 Generator Owner4.1.6 Applicable Generator Owner4.1.6.1 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.”</p>
<p>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</p>	<p>Yes</p>	<p>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.</p> <p>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).</p> <p>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</p>

Organization	Yes or No	Question 2 Comment
		commitment to proceed may not be conveyed to the RC in time for adequate integration and verification prior to the In-Service/Synch/COD.
Arizona Public Service Company	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.
SPP Standards Review Group	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.
Ingleside Cogeneration LP	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.

Organization	Yes or No	Question 2 Comment
		Our reading of both standards indicates that everyone’s rights are preserved in the process - a necessary part of well-applied regulatory oversight.
Pepco Holdings Inc.	Yes	
Xcel Energy	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.
Virginia State Corporation Commission (member, Operating Committee)	Yes	
Kansas City Power & Light	Yes	
Tri-State Generation and Transmission Association, Inc.	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.
Georgia Transmission Corporation	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



Organization	Yes or No	Question 2 Comment
		<p>“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.</p>
Exelon	Yes	<p>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</p>

Organization	Yes or No	Question 2 Comment
		whether a requirement should say evaluate compliance with other applicable Standards.
Oncor Electric Delivery	Yes	
David Kiguel	Yes	
Wisconsin Electric	Yes	<ul style="list-style-type: none"> <li>• Splitting the current R1 into 3 separate requirements adds clarity to the actual duties and responsibilities associated with interconnecting new Facilities.</li> <li>• Deleting R2 due to paragraph 81 considerations is also very appropriate.</li> <li>• 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.”</li> </ul>
Northeast Utilities	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.
City of Tacoma - Tacoma Power	Yes	
HHWP	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

Organization	Yes or No	Question 2 Comment
		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 may GO's are working within multiple TP and PC areas.
Colorado Springs Utilities		
DTE Electric		DTE's Operational & Planning Engineering recommends changing all instances of "Planning Coordinator" to "Transmission Planning Coordinator" for needed clarity.

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

**Summary Consideration:**

The Implementation Plan received substantial support; therefore, the SDT has not modified the Implementation Plan with the exception of the incorporation of non-substantive changes to the language of FAC-001-2 and FAC-002-2.

Organization	Yes or No	Question 3 Comment
ACES Standards Collaborators	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.
Kansas City Power & Light	No	
Modesto Irrigation District	No	<p>I am voting NO on the proposed revisions to both standards for the following reasons:</p> <ol style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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”.</li> </ol>

Organization	Yes or No	Question 3 Comment
		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
<b>Response:</b> The SDT has addressed your comments above, under the Question 2 responses on FAC-002-2 comments.		
Dominion	Yes	
Northeast Power Coordinating Council	Yes	
NCPA Generation	Yes	
PacifiCorp	Yes	
MRO NERC Standards Review Forum	Yes	
FirstEnergy	Yes	FirstEnergy does anticipate some procedural revisions for which one year is appreciated.
DTE Electric	Yes	
Tennessee Valley Authority	Yes	
Duke Energy	Yes	Duke Energy agrees with the proposed Implementation Plan.
Florida Municipal Power Agency	Yes	
Southern Company: Southern Company Services, Inc.;	Yes	

Organization	Yes or No	Question 3 Comment
Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing		
Florida Power & Light	Yes	Assuming that FAC-002-1 is revised to further clarify.
ISO/RTO Council Standards Review Committee	Yes	
Arizona Public Service Company	Yes	
SPP Standards Review Group	Yes	
Rayburn Country Electric Cooperative	Yes	
Dynergy	Yes	
Manitoba Hydro	Yes	
Ameren	Yes	
Ingleside Cogeneration LP	Yes	

Organization	Yes or No	Question 3 Comment
Independent Electricity System Operator	Yes	
Pepco Holdings Inc.	Yes	
Virginia State Corporation Commission (member, Operating Committee)	Yes	
Tri-State Generation and Transmission Association, Inc.	Yes	
Georgia Transmission Corporation	Yes	
American Electric Power	Yes	
American Transmission Company, LLC	Yes	
Exelon	Yes	
Oncor Electric Delivery	Yes	
David Kiguel	Yes	
Wisconsin Electric	Yes	
Idaho Power Company	Yes	
Northeast Utilities	Yes	

Organization	Yes or No	Question 3 Comment
Minnkota Power Cooperative	Yes	
Southern California Edison Company	Yes	
California ISO	Yes	
City of Tacoma - Tacoma Power	Yes	
HHWP	Yes	

**END OF REPORT**