NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Project 2010-02 Five-Year Review of FAC-001-1 and FAC-002-1

The Project 2010-02 FAC Five-Year Review Team (FYRT) thanks all who submitted comments on the review of FAC-001-1 and FAC-002-1 standards. The review of these standards was posted for a 45-day comment period from August 1, 2013 through September 16, 2013. Stakeholders were asked to provide feedback on the FYRT's recommendations and associated documents through a special electronic comment form. There were 24 sets of responses, including comments from approximately 83 different people from approximately 50 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

A vast majority of commenters supported the recommendations of the FYRT, but the team made changes to the original recommendations to implement stakeholder suggestions and recommendations from the Independent Experts Review Panel (IERP). The FYRT is making the following additional recommendations:

- Revise FAC-001-1, R1 and R2 to eliminate redundant required actions and to describe the required actions (document, update as needed, and make available upon request) in a more measurable way.
- Change the reference to third party impact in FAC-001-1, R3.1.1 and R3.1.2 to "affected Transmission system(s)."
- Modify the FAC-003-1, R1.2 to more clearly address the list of elements with which an interconnection would ultimately have to comply
- Propose a new requirement (Requirement R4) to address a possible gap regarding the responsibilities of the Transmission Owners and applicable Generator Owners that have received requests to interconnect to their Facilities.

Below, the FYRT has summarized and responded to the both the stakeholder comments submitted and the substantive recommendations from the IERP:

FAC-001-1 Comment

- Some commenters stated that FAC-001-1 should not have been reviewed because it was not yet approved by FERC. The FYRT maintains that the changes in FAC-001-1 were so surgical compared to the previous version that applying the FYRT recommendations to the previous version would not have been difficult. Regardless, FAC-001-1 was approved by FERC in an order issued on September 19, 2013.

- Some commenters suggested specific revisions for the FAC-001-1 purpose statement, suggesting that it be modified to refer to "performance assessments" instead of "performance requirements." The FYRT has proposed a revised purpose statement to better reflect the language of the standard, but does not believe that any reference to performance is appropriate.
- Some commenters believe the development of Facility connection requirements should be left to the regions. But unless there is a valid reason to develop standards along regional lines, the FYRT supports consistency across the regions when it comes to setting criteria. This should continue to be assigned by functional entity. Connection requirements could vary even within a region, and it would be difficult for a region to set criteria that would apply in all cases within a region.
- One commenter disagreed with the FYRT's assertion that "publish" in R1 in FAC-001-1 is an unclear term. The FYRT continues to believe that the meaning of "publish" is unclear and decided to change the action to "make available upon written request." This change is more consistent with reliability principle 3 (which states that "information necessary for the planning and operation of the interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably") and takes away the possible implication that the Facility connection requirements should be truly public; in some cases it's not appropriate to post requirements on a website, but entities wishing to interconnect should be able to ask for them if necessary.
- Some commenters emphasized that the coordination required in FAC-001-1, R3.1.1 and R3.1.2 are the most important elements of R3. The FYRT agrees and has recommended the retirement of the other subparts of R3.
- The team received a variety of comments for how to refer to third parties in FAC-001-1, R3.1.1 and R3.1.2. Some commenters recommended that the reference remain as "interconnected Transmission systems" and some recommended that "…and adjacent Transmission systems" be added to the former phrase. The FYRT determined that the phrase "affected Transmission system(s)" captures appropriate third party impacts without overly broadening the scope of the requirement.
- Some commenters did not agree that the subparts of FAC-001-1, R3 should be deleted. The FYRT continues to believe that subparts 3.1.3-3.1.16 are too prescriptive for inclusion in a standard; the team maintains that Facility connection requirements need to include what's appropriate for each entity.
- Some commenters encouraged the drafting team to consider special circumstances for variable or dispersed generation. Consideration of variable or dispersed generation is important, but would need to be considered under individual Facility connection criteria where variable or dispersed generation penetration is high; the standard doesn't need to change in order for variable or dispersed generation to be considered here. The existing criteria are adequate.
- Some commenters found FAC-001-1, R3.1.2 ("Procedures for notification of new or modified Facilities to others (those responsible for the reliability of affected Transmission system(s)")

redundant thanks to the clarification of responsibilities in FAC-002-1. FAC-001-1 focuses on documenting procedures for what takes place in FAC-002; the coordination is taking place under FAC-002, but FAC-001 is requiring the documentation of how that coordination/notification will take place.

- One commenter suggested that the phrase "as soon as feasible" in FAC-001-1, R3.1.2 is vague. The FYRT agrees and has proposed deleting it.
- One commenter suggested that notification in FAC-001-1, R3.1.2 should include the Reliability Coordinator (RC). The FYRT believes that R3.1.2 is written in a general enough way that the RC could be included in the list of entities that would be notified, but the FYRT doesn't think it is necessary to explicitly require notifying the RC (or any other particular entity), as the entities that need to be informed about a new interconnection could vary from case to case.
- One commenter was concerned about overlap between FAC-001 and VAR-001, specifically, with FAC-001 R3.1.9 ("Voltage, Reactive Power, and power factor control"). The FYRT is proposing to retire R3.1.9. The team does not believe that Voltage, Reactive Power, and power factor control need to be required for consideration under FAC-001-1. The R3.1.9 retirement is not contingent upon any reference remaining in the VAR standards, but the FAC FYRT notes that any inclusions of the items described in the VAR standards is best determined during the continued development of VAR-001-1.

FAC-002 Comments

- Some commenters encouraged the careful trifurcating of FAC-002-1 R1 to avoid confusion for vertically integrated utilities. The FYRT notes that the Functional Model would still require a vertically integrated utility to register as the separate Registered Entities, so the same processes and requirements would apply regardless of the way the utility is legally organized.
- Some commenters expressed concern that companies that own generation but are not yet registered as Generator Owners (GOs) would not be covered under FAC-002-1. Any entity that owns generation that meets the thresholds defined in the NERC Statement of Compliance Registry Criteria and interconnects will eventually need to be registered as a GO, and that entity will then have to comply with the requirements of the proposed R2. There is no mechanism for NERC to enforce mandatory compliance with its standards until any entity is registered with NERC, so entities requesting generation interconnection (that are not registered GOs) cannot be addressed in this standard.
- Some commenters believe that GOs don't need a separate requirement in FAC-002-1. The FYRT believes it is clearer to separate the requirement for the GO from the requirement for the other entities, to better clarify what kind of facilities each entity is seeking to interconnect (generation facilities for GOs and transmission facilities or electricity end-user facilities for Transmission Owners, Distribution Providers, and Load-Serving Entities).
- Some commenters pointed to redundancy in FAC-002-1, R1.1-R1.5. The FYRT has modified R1.1-R1.5 for consistency and added clarity. The original R1.3 was deleted and R1.5 was modified to focus less on documentation and more on the content of the assessment.

- One commenter was concerned about the terms "coordinate and cooperate" in FAC-002-1, R2 and R3. The FYRT discussed whether the actions "coordinate and cooperate" were appropriately measurable. The team considered instead proposing a construction similar to the one in TOP-003-2—Operational Reliability Data, which requires the lead entities develop and distribute a documented specification for the data necessary to perform an analysis and requires the participating entities to satisfy the obligations of the data request. The FYRT believes that "coordinate and cooperate" involve more than the sharing of data, and that the requirement can be satisfied with evidence of in-person and web- or phone-based meetings ("coordination and cooperation") among involved entities. The FYRT will leave it up to the FAC-001-1 and FAC-002-1 drafting team and the industry to determine whether the construction used in the proposed TOP-003-2 is preferable.

General Comments for FAC-001-1 and FAC-002-1:

- Some commenters expressed some concern about the eventual implementation of these changes, and the FYRT encourages those commenters to submit their concerns during the comment periods that take place during the development process.
- Several commenters encouraged better coordination with the TPL standards, from removing the reference to the specific TPL standards in FAC-002-1, to modifying the TPL standards in order for entities to comply with FAC-001-1 and FAC-002-1, to identifying redundancies among the TPL standards and FAC-002-1. The FYRT has chosen to recommend removing references to specific TPL standards in FAC-002-1, acknowledging that the standards may change in the future (whether with the approval of TPL-001-4 or otherwise). Instead, the team is proposing a reference to "the TPL Reliability Standards, as applicable." The FYRT does not agree with some commenters that the TPL standards need to be modified in order for entities to comply with FAC-001-1 and FAC-002-1, nor would those modifications be within the scope of this five-year review. As already discussed in the recommendation, the FYRT determined that the assessment requirement in FAC-002-1 is distinct from TPL-001-4, R2; a Planning Assessment under TPL would be for existing facilities or interconnections, whereas FAC-002 requires a similar kind of assessment to TPL, but it's a *pre-interconnection* assessment for new Facilities that may or may not end up interconnecting. 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 modified Transmission Facilities" and "Generation additions, retirements or other dispatch scenarios" can only be included in TPL-001-4 sensitivity studies after they have gone through FAC-002-1 assessments and it has been determined that the Facilities will actually interconnect. The Facilities being assessed under FAC-002-1 have not yet been confirmed as new or modified Facilities.
- Some commenters did not agree with the proposed deletion of the references to compliance with NERC Reliability Standards, applicable regional criteria, etc. in FAC-001-1 and FAC-002-1 stating that at least, "Transmission Owner Planning Criteria" should be retained. While the FYRT continues to believe that it is redundant to refer to compliance with these various standards

and criteria is redundant when included in both FAC-001-1 and FAC-002-1, the team believes that the list appropriately catalogs some of the elements that must be considered in assessment of a new interconnection.

- Some commenters continue to encourage the retirement of all or part of FAC-001-1 and FAC-002-1 because FERC tariffs cover most of what's addressed in the standards. Although Facility connection requirements for public utilities are typically covered in Open Access Transmission Tariffs (OATTs) under Sections 205 and 206 of the Federal Power Act, this leaves out electric utilities such as municipalities, cooperatives, and federal entities (e.g., the Bonneville Power Administration and the Tennessee Valley Authority), which are addressed under Section 215 of the Federal Power Act. OATTs also would not apply to non-jurisdictional entities that fall in NERC's footprint (e.g., Canadian entities). Ultimately, the team agreed that Facility connection requirements are necessary for reliability and should continue to be explicitly addressed in NERC standards.
- Some commenters continue to believe that FAC-001-1 and FAC-002-1 are not needed for reliability. The FYRT disagrees. FAC-001 is necessary for ensuring that Transmission Owners and applicable Generator Owners establish Facility connection requirements. The development and documentation of these Facility connection requirements facilitates the assessment process that takes place in FAC-002-1. And these interconnections absolutely can impact reliability: new generation or transmission affects the transmission system topology, changing the system impedance, short-circuit current, steady state, and dynamic performance. The majority of commenters, along with the IERP, believe that the standards are necessary for reliability. With respect to one commenter who stated that FAC-002-1 is not necessary for vertically integrated utilities, the FYRT notes that not all companies are vertically integrated, and independent entities could still seek to integrate with a vertically integrated company. NERC's Reliability Standards must consider the impact on the entire BES, not just the impact on one specific entity.
- Some commenters indicated support for combining FAC-001-1 and FAC-002-1. Others recommended not combining the standards. The FYRT recommends keeping the standards separate in order to delineate the distinct applicabilities in the two standards. The FYRT believes that once the purpose for each standard are modified to better fit the requirements in FAC-001 and FAC-002, the distinction between the standards will be clearer.
- Some commenters suggested updates to boilerplate language (e.g., references to the Board of Trustees, effective dates language). All boilerplate language will need to be updated once all sections of the standard are revised by the drafting team**.**
- One commenter disagreed that time horizons should be added to the standards, but the FYRT reminds the commenter that the new format for Reliability Standards requires the inclusion of time horizons.
- Some commenters were concerned about inconsistency among review teams and asked if the teams considered the recommendations of the IERP. FYRTs were given some flexibility in how they conducted their work, acknowledging that the different families of standards being

reviewed require different strategies and solutions for review and future development. All FYRTs did consider the IERP recommendations as one of several significant inputs as they conducted their reviews.

IERP Recommendations

In general, the IERP continued to support the reliability need for both FAC-001-1 and FAC-002-1. The FYRT implemented the majority of their recommendations, but is proposing some changes that are different from the IERP recommendations in some cases where industry expertise and consensus suggested a different solution.

	IERP Recommendation	FYRT Response
FAC-001-1, R1	Word published is not clear	The FYRT has recommended the requirement to "publish" be changed to "make available upon written request."
FAC-001-1, R1 and R2	Team had long discussion on the fact that FAC-001 requires the TO to publish the Facility connection requirements, but it does not put a requirement on anyone wanting to interconnect to meet the requirements in the Facility connection requirements. NERC should work with industry to see if an enforcement on entities wanting to interconnect should be added to the NERC standards.	The FYRT does not believe such a change is necessary. FAC-002-1, R1.2 requires that assessments of the impact of integrating new or modified Facilities ensure compliance with NERC Reliability Standards; applicable regional, subregional, power pool, and Transmission Owner planning criteria; and *Facility connection requirements.*
FAC-001-1, R1 and R2	Only R1 and R2 are relevant to reliability	As recommended in another IERP recommendation, while R1 and R2 are very important and much of R3 can be deleted, certain aspects of R3 are still necessary for reliability.
FAC-001-1, R3	R3: Streamline the items in 3.1 by removing- 3.1.1, 3.1.2,3.1.3,3.1.9,3.1.11,3.1.13,3.1.15, 3.1.16 – we disagree and think that all but 3.1.1 and 3.1.2 can be deleted. Necessary for reliability, but should be streamlined	The FYRT believes that all subparts except R3.1.1 and R3.1.2 are too prescriptive to include in a standard.

FAC-001-1, R4:	Administrative; should be deleted	The FYRT agrees.
FAC-002-1, R1:	Merge 1.1 and 1.4; retire 1.2, 1.3 and 1.5. The new 1.1 and 1.4 should say 'the assessment shall address requirements as identified in the FCR and the performance requirements as identified in the TPL stds."	Though the FYRT does not agree with the specific recommendations of the IERP, the team agrees that there is room for improvement in the subparts of R1. The FYRT has proposed modifications to R1.1-R1.5 for consistency and added clarity. The FYRT recommends the original R1.3 be deleted and R1.5 modified to focus less on documentation and more on the content of the assessment.
FAC-002-1, R1	"…applicable Regional requirements" language is not clear	The FYRT believes that the list of standards and criteria that assessments must consider catalogs some of the elements that must be considered in assessment of a new interconnection. Some regions have specific requirements that may inform Facility connection requirements, and those should be considered.
FAC-001-1 and FAC-002-1	The IERP suggested a new construct be adopted by the ERO for NERC Reliability Standards. Under this construct, FAC-001 and FAC-002 would be combined with TPL-001, MOD-010, MOD-012, MOD-025, MOD-026, and MOD-027 to "Assess Transmission Future Needs and Develop Transmission Expansion Plans - Not Operational Planning." Has the Five Year Review Team considered this construct?	While the FYRT supports this general direction, transition to this new framework is premature and would need to be carefully coordinated across a variety of projects.

All comments submitted may be reviewed in their original format on the 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 Vice President and Director of Standards, Mark Lauby, at 404-446-2560 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

[1] The appeals process is in the Standard Processes Manual: http://www.nerc.com/comm/SC/Documents/Appendix_3A_StandardsProcessesManual.pdf

Index to Questions, Comments, and Responses

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	Guy Zito	Northeast Power Coordinating Council										X

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC	10
2.	Greg Campoli	New York Independent System Operator	NPCC	2
3.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
4.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1
5.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
6.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5
7.	Kathleen Goodman	ISO - New England	NPCC	2
8.	Michael Jones	National Grid	NPCC	1
9.	Mark Kenny	Northeast Utilities	NPCC	1
10.	Ayesha Sabouba	Hydro One Networks Inc.	NPCC	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

11.	Christina Koncz	Independent Electricity System Operator	NPCC	5
12.	Michael Lombardi	Northeast Power Coordinating Council	NPCC	10
13.	Randy MacDonald	New Brunswick Power Transmission	NPCC	9
14.	Bruce Metruck	New York Power Authority	NPCC	6
15.	Silvia Parada Mitchell	NextEra Energy, LLC	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.	Wayne Sipperly	new York Power Authority	NPCC	5
21.	Donald Weaver	New Brunswick System Operator	NPCC	2
22.	Ben Wu	Orange and Rockland Utilities	NPCC	1
23.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
24.	Brian Robinson	Utility Services	NPCC	8
25.	Brian Shanahan	National Grid	NPCC	1
26.	Helen Lainis	Independent Electricity System Operator	NPCC	2

2.	Group	Ben Engelby	ACES Standards Collaborators						X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Shaver	Arizona Electric Power Cooperative/Southwest Transmission Cooperative, Inc.	WECC	1, 4, 5
2.	Shari Heino	Brazos Electric Power Cooperative, Inc.	ERCOT	1, 5
3.	Paul Jackson	Buckeye Power, Inc.	RFC	3, 4
4.	Amber Anderson	East Kentucky Power Cooperative	SERC	1, 3, 5
5.	Bob Solomon	Hoosier Energy Rural Electric Cooperative, Inc.	SERC	1
6.	John Lemire	North Carolina Electric Membership Corporation	SERC	1, 3, 4, 5
7.	Alisha Anker	Prairie Power, Inc.	SERC	3
8.	Megan Wagner	Sunflower Electric Power Corporation	SPP	1

3.	Group	Robert Rhodes	SPP Sandards Review Group										

	Additional Member	Additional Organization	Region	Segment Selection
1.	Greg Froehling	Rayburn Country Electric Cooperative	SPP	3
2.	Mark Hamilton	Oklahoma Gas & Electric	SPP	1, 3, 5

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
3. Steve Hardebeck	Oklahoma Gas & Electric	SPP 1, 3, 5										
4. Don Hargrove	Oklahoma Gas & Electric	SPP 1, 3, 5										
5. Greg McAuley	Oklahoma Gas & Electric	SPP 1, 3, 5										
6. James Nail	City of Independence, MO	SPP 3										
7. Kevin Nincehelser	Westar Energy	SPP 1, 3, 5, 6										
8. Don Taylor	Westar Energy	SPP 1, 3, 5, 6										
4. Group	Randi Heise	NERC Compliance Policy	X		X		X	X				
Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1. Connie Lowe	Dominion	RFC	5, 6									
2. Louis Slade	Dominion	SERC	1, 3, 5, 6									
3. Mike Garton	Dominion	NPCC	5, 6									
4. Randi Heise	Dominion	MRO	5, 6									
5. Group	Colby Bellville	Duke Energy	X		X		X	X				
Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1. Doug Hils	Duke Energy	RFC	1									
2. Lee Schuster	Duke Energy	FRCC	3									
3. Dale Goodwine	Duke Energy	SERC	5									
4. Greg Cecil	Duke Energy	RFC	6									
6. Group	Brandy Spraker	Tennessee Valley Authority	X		X		X	X				
Additional Member	**Additional Organization**	**Region**	**Segment Selection**									
1. Marjorie Parsons		SERC	6									
2. Tom Vandervort		SERC	5									
3. Annette Dudley		SERC	5									
4. Paul Palmer		SERC	5									
5. Lee Thomas		SERC	5									
6. Tom Cain		SERC	1									
7. Robbie Bottoms		SERC	1									
8. Jason Regg		SERC	1									
9. Brenda Eberhart		SERC	1									
7. Individual	Janet Smith	Arizona Public Service Company	X		X		X	X				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
8.	Individual	Pamela Hunter	Southern Company: 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				
9.	Individual	Kelly Cumiskey	PacifiCorp	X		X		X	X				
10.	Individual	Kaleb Brimhall	Colorado Springs Utilities	X		X		X	X				
11.	Individual	Erika Doot	Bureau of Reclamation	X				X					
12.	Individual	Tammy Porter	Oncor Electric Delivery	X		X							
13.	Individual	David Thorne	Pepco Holdings Inc	X		X							
14.	Individual	Greg Froehling	Rayburn Electric Cooperative	X		X							
15.	Individual	John Seelke	Public Service Enterprise Group	X		X		X	X				
16.	Individual	Nazra Gladu	Manitoba Hydro	X		X		X	X				
17.	Individual	Thomas Foltz	American Electric Power	X		X		X	X				
18.	Individual	Mitch Colburn	Idaho Power Company	X									
19.	Individual	Michael Falvo	Independent Electricity System Operator		X								
20.	Individual	Michelle R. D'Antuono	Occidental Energy Ventures Corp			X		X		X			
21.	Individual	Julaine Dyke	Northern Indiana Public Service Company	X		X		X					
22.	Individual	Andrew Gallo	City of Austin dba Austin Energy	X		X	X	X	X				
23.	Individual	Andrew Z. Pusztai	American Transmission Company, LLC	X									
24.	Individual	Alice Ireland	Xcel Energy	X		X		X	X				

1. Do you agree with the FYRT that despite the need for some revisions, FAC-001-1 is necessary for reliability?

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Yes or No	Question 1 Comment
American Electric Power	No	AEP believes this standard could be eliminated as it is not necessarily needed for reliability. Entities would not allow other to interconnect with them without the appropriate process being met.
Colorado Springs Utilities	No	FAC-001-1 could go away and it would not affect reliability. Please give examples where the BES was impacted by issues addressed by this standard. If anything, keep FAC-002-1 which requires coordination and eliminate FAC-001-1. Significant BES modifications are almost always long range plans that would already be evaluated under the TPL standards. We do not need FAC-001-1 to be more reliable.
Rayburn Electric Cooperative	No	Since the Transmission Owner(s) and Generation owner(s) publish their own individual requirements, what assurance do we have that the requirements are supportive of each other as result of this standard.This is where NERC should step back and require the region to establish minimum reliability criteria for facilities within the region. The region does all the planning, modeling and has procedures for new assets within their region... Since it has been stated R3 is too prescriptive that leaves the region to address R1 and R2... I see no real need for reliability nor any gaps created.
Manitoba Hydro	Yes	(1) Manitoba Hydro believes that it is important to have a document that clearly illustrates the interconnection requirements and is in agreement that FAC-001-1 is necessary for reliability.
Northeast Power Coordinating	Yes	The provisions of FAC-001 besides being needed for reliability are also needed to implement regulatory obligations under other FERC dockets, specifically the FERC

Organization	Yes or No	Question 1 Comment
Council		LGIA and SGIA obligations. It would be best to keep FAC-001 separate, rather than combine it with FAC-002.
ACES Standards Collaborators	Yes	We agree that facility connection requirements should be required for reliability. However, the majority of FAC-001 should be modified. Requirements R1 and R2 largely meet P81 requirements because they are redundant with FERC tariffs (which cover virtually the entire grid due to reciprocity requirements). The requirements that are necessary for reliability are R3.1.1 and R3.1.2, which require responsible entities to have procedures studying the impact of new facilities.
SPP Sandards Review Group	Yes	
NERC Compliance Policy	Yes	
Duke Energy	Yes	
Tennessee Valley Authority	Yes	
Southern Company: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing	Yes	
PacifiCorp	Yes	
Bureau of Reclamation	Yes	
Oncor Electric Delivery	Yes	

Organization	Yes or No	Question 1 Comment
Pepco Holdings Inc	Yes	
Public Service Enterprise Group	Yes	
Idaho Power Company	Yes	
Independent Electricity System Operator	Yes	
Northern Indiana Public Service Company	Yes	
City of Austin dba Austin Energy	Yes	
American Transmission Company, LLC	Yes	

2. Do you agree with the FYRT that despite the need for some revisions, FAC-002-1 is necessary for reliability?

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Yes or No	Question 2 Comment
American Electric Power	No	AEP believes that this standard could be eliminated as it is not necessarily needed for reliability. Entities would not allow other to interconnect with them without the appropriate process being met.
Oncor Electric Delivery	No	Oncor proposes that FAC-002-1 be retired in its entirety due to the following reason. Based on the FYRT's comments, only one requirement, R1, will remain in the Standard. R1 requires Generator Owners, Transmission Owners, Distribution Providers, and Load-Serving Entities "seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities" to "each coordinate and cooperate on its assessments with their Transmission Planner and Planning Authority" to evaluate "the reliability impact of the new facilities and their connections on the interconnected transmission systems", and to perform such assessments in accordance with Reliability Standards TPL-001 – TPL-003. We recommend moving this coordination and cooperation requirement to Reliability Standards TPL-001 – TPL-004 and retiring FAC-002-1 in its entirety.
Manitoba Hydro	Yes	(1) It's important to perform an initial reliability assessment of facility connections and also important to ensure the connection complies with the facility connection requirements in FAC-001-1. Therefore, Manitoba Hydro supports the conclusion that FAC-002-1 is necessary for reliability.

Organization	Yes or No	Question 2 Comment
Rayburn Electric Cooperative	Yes	Combine it with FAC-001 again this is a standard that in large part is performed by the region.
Occidental Energy Ventures Corp	Yes	Occidental Energy Ventures Corp ("OEVC"). supports the modifications that the FAC five year review team has recommended. FAC-002-1 includes redundant requirements that are already enforceable in other venues and should be retired. In addition, we are anxious to see the responsibilities associated with new Facility planning to be allocated to the proper entities. It is up to the TP and PC to conduct facility interconnection assessments while the DP/GO/TO/LSE cooperates in the process - and FAC-002-1 should reflect that reality.However, it is premature to suppose that economic responsibilities dictated by the tariff are somehow less enforceable than reliability requirements under the NERC standards. Both roll up to FERC - and are subject to penalties if violations occur. Even if not apparent now, OEVC believes that future evaluations of FAC-002-1 and other similar standards retain the opportunity to eliminate such redundancies.
Colorado Springs Utilities	Yes	This standard requires the actual evidence of coordination so would better address reliability than FAC-001-1 does. Are there any examples that demonstrate the importance of the issues covered in this standard to the reliability of the BES? Significant BES modifications are almost always long range plans that would already be evaluated under the TPL standards and incorporated into future WECC base cases. Because CSU is a vertically integrated company we do not need FAC-002-1 to be more reliable.
Northeast Power Coordinating Council	Yes	
ACES Standards Collaborators	Yes	
SPP Sandards Review Group	Yes	

Organization	Yes or No	Question 2 Comment
NERC Compliance Policy	Yes	
Duke Energy	Yes	
Tennessee Valley Authority	Yes	
Southern Company: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing	Yes	
PacifiCorp	Yes	
Pepco Holdings Inc	Yes	
Public Service Enterprise Group	Yes	
Idaho Power Company	Yes	
Independent Electricity System Operator	Yes	
Northern Indiana Public Service Company	Yes	
City of Austin dba Austin Energy	Yes	
American Transmission	Yes	

Organization	Yes or No	Question 2 Comment
Company, LLC		

3. **As explained in more detail in the *Five-Year Review Recommendation to Revise FAC-001-1,* the FYRT has proposed several revisions that a drafting team should consider in revising FAC-001-1:**

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

   Do you agree with these proposed revisions? If not, please be specific in identifying the revisions you support and those you do not.

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Yes or No	Question 3 Comment
ACES Standards Collaborators	No	(1) We agree with some of the proposed revisions, such as retiring requirements based on P81 and removing references to "applicable Regional Entity, subregional," etc. in R1 because it is unclear. However, we have other concerns about revising FAC-001-1, which are stated below.(2) FAC-001-1 is currently pending approval at FERC. We do not understand why the review team recommended revising this standard until a final order is issued by the Commission. Similar to FAC-003-3, we recommend delaying the review of FAC-001-1 until after the Commission issues a final order.(3) We are confused by a couple of statements in the FYRT document. In one place, the recommendation is to remove R1 and R2 or least some elements of these requirements, but then the document states that R1 and R2 do not meet P81 criteria. Which is it? (4) On page 7 of the FYRT document states: "The FYRT believes

Organization	Yes or No	Question 3 Comment
		that only subparts 3.1.1 and 3.1.2, which require Transmission Owners and applicable Generator Owners to have procedures for studying the impact of new Facilities on the Transmission system and procedures for notifying others about new Facilities relate to reliability and should remain in the standard." While we agree that new Facilities need to be studied and notifications of new Facilities need to be made to other entities with a reliability related-need, we request the FYRT to review these sub-parts against the existing TPL standards and proposed TPL standards to avoid duplication. TPL standards already explicitly require the evaluation of new facilities. (5) Also on page 7, the FYRT document states: "While the FYRT agrees that many documentation requirements are not related to reliability, the team believes that this FAC-001 is about more than documentation; it requires the establishment of Facility connection requirements. ... And although Facility connection requirements are typically covered in tariffs or other similar documents, the requirement for Open Access Transmission Tariffs (OATT) or ISO/RTO requirements 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." To state that tariffs are strictly market-related documents is misleading. FERC mandates that every OATT requires utilities to follow good utility practice and have facility connection requirements for reliability purposes. We remind the FYRT that part of the P81 criteria, B7, recommends retirement when a requirement is redundant with: (i) another FERC-approved Reliability Standard requirement(s); (ii) the ERO compliance and monitoring program; or (iii) a governmental regulation (e.g., Open Access Transmission Tariff, North American Energy Standards Board ("NAESB"), etc.). We believe this meets P81 criteria, B7 part (iii).
City of Austin dba Austin Energy	No	Austin Energy (AE) agrees with the FYRT's recommendations except for the following two comments: (1) Regarding the FAC-001 purpose statement, AE suggests NERC change "performance requirements" to "performance assessments" and not remove it. (2) AE believes that, with regard to R3.1.1 & R3.1.2 for FAC-001, "adjacent Transmission systems" does not need to be explicitly included. ERCOT has a regional

Organization	Yes or No	Question 3 Comment
		process for handling this process which covers adjacent Transmission systems. We expect this is the case in other regions as well.
Northern Indiana Public Service Company	No	NIPSCO supports bullets 1, 4, 5, 6, and 7 above. Both R1 and R2 references to compliance with "NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements should be retained. The reference to "...individual Transmission Owner Planning Criteria..." is especially important because it requires each Transmission Planner's Planning Criteria to be taken into account during a study. This is of great significance because depending upon their location in the grid, some Transmission Owner Planning Criteria needs to be more stringent than others based on neighboring system impact (e.g through flows) on their Bulk Electric System. In order to ensure the system can reliably handle the through flows caused by adjacent RTO, some Transmission Owners have developed more stringent planning criteria to safe guard the reliability of their grid. We want to ensure that our Planning Criteria is taken into account on all studies. The ERO framework established in Order 672 does not address how to handle neighboring system impact like (e.g through flows) on the system. Neither does it establish a framework on considering Individual Transmission Owners Planning Criteria for NERC standards. Order 672 only vaguely talks about regional differences but not the applicability of different transmission owner criteria in the planning study.NIPSCO supports bullet 3 with the following recommendation:The wording "adjacent Transmission systems" needs to be explicitly included in the requirement language of R3.1.1 and R3.1.2 to account for third party impacts. The phrase "the interconnected Transmission System" alone does not necessarily mean that adjacent systems would be studied. An RTO which oversees the "interconnected Transmission System" spanning several states may not necessarily study an adjacent Transmission Owner's system which is under the jurisdiction of another RTO. This creates a lot of SEAMS issues. The current TPL (001 -004) standards do not explicitly say if a RTO or TP should address reliability concerns of adjacent systems when they study their system. Therefore, it is imperative we include the wording "adjacent Transmission Systems" at the very

Organization	Yes or No	Question 3 Comment
		least in the FAC standards to at least clarify this ambiguity which was not addressed in the current TPL standards.
Oncor Electric Delivery	No	Oncor supports all revisions except for the proposed revision to R3.1.1. We recommend that R3.1.1 be retired and this provision added to Reliability Standards TPL-001 – TPL-004. The concept is that "coordinated joint studies of new facilities and their impacts on the interconnected Transmission systems" should be coordinated and studied under Reliability Standards TPL-001 – TPL-004.
Manitoba Hydro	Yes	(1) Manitoba hydro believes that the revisions to FAC-001-1 proposed by the drafting team are sufficient except for retiring all of the subparts of R3. Guidance documents are not mandatory and it will be unclear as to how much material to include in the facility connection document for NERC audit purposes.
Colorado Springs Utilities	Yes	No Comments
American Electric Power	Yes	Please see our response to question number 1, however we do not object to these modifications if the industry believes that the standard is required for reliability.
Northeast Power Coordinating Council	Yes	We support all of the above revisions.
SPP Sandards Review Group	Yes	
NERC Compliance Policy	Yes	
Duke Energy	Yes	
Tennessee Valley Authority	Yes	
Southern Company: Alabama Power Company; Georgia Power	Yes	

Organization	Yes or No	Question 3 Comment
Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing		
PacifiCorp	Yes	
Bureau of Reclamation	Yes	
Pepco Holdings Inc	Yes	
Rayburn Electric Cooperative	Yes	
Public Service Enterprise Group	Yes	
Idaho Power Company	Yes	
Independent Electricity System Operator	Yes	
American Transmission Company, LLC	Yes	

4. **Are there any additional revisions to FAC-001-1 that you believe are necessary for reliability? If so, please explain those proposed revisions and explain why they are necessary (e.g., to properly apply Paragraph 81 criteria, for clarity, etc.).**

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Yes or No	Question 4 Comment
Colorado Springs Utilities	No	No Comments
American Electric Power	No	Please see our response to question number 1.
SPP Sandards Review Group	No	
NERC Compliance Policy	No	
Duke Energy	No	
Tennessee Valley Authority	No	
PacifiCorp	No	
Pepco Holdings Inc	No	
Rayburn Electric Cooperative	No	
Public Service Enterprise Group	No	
Idaho Power Company	No	
Independent Electricity System Operator	No	

Organization	Yes or No	Question 4 Comment
Northern Indiana Public Service Company	No	
City of Austin dba Austin Energy	No	
American Transmission Company, LLC	No	
Manitoba Hydro	Yes	(1) The drafting team also needs to consider the recommendations made by IVGT1-3 in: http://www.nerc.com/files/2012_IVGTF_Task_1-3.pdf
ACES Standards Collaborators	Yes	(1) We recommend the FYRT review the Independent Expert Review Report, which has several recommendations for revising FAC-001. The experts' findings state: (a) FAC-001 requires the TO to publish the FCR, but it does not put a requirement on anyone wanting to interconnect to meet the requirements in the FCR. NERC should work with industry to see if enforcement on entities wanting to interconnect should be added to the NERC standards. (b) FAC-001 R2 meets the Paragraph 81 criteria and should be retired. (c) Streamline the items in Requirement R3 part 3.1 by removing- 3.1.1, 3.1.2, 3.1.3, 3.1.9, 3.1.11, 3.1.13, 3.1.15, and 3.1.16. These are other recommendations that should be taken into consideration.(2) The language in the new R2 and R3 "to simply coordinate and cooperate" sound like P81 requirements. The team should avoid using "coordinate" as it is not measurable. What is actually required? To supply data? To review a study? To agree with results? Also, the team should be careful not to introduce new P81 requirements that are redundant with other standards. For example, the MOD standards are proposing requirements to compel the sharing of data, and we do not need additional requirements in FAC-001 to supply data. Could the sharing of the data per the MOD standards be part of the "coordination" that FYRT is seeking?
Oncor Electric Delivery	Yes	If the retirement of R3.1.1 is rejected and if the reference to "interconnected transmission systems" is made in a Standard, Oncor recommends keeping the

Organization	Yes or No	Question 4 Comment
		phrase, "interconnected transmission systems" in such Standard. However, if the proposal to change "interconnected transmission systems" to "interconnected transmission system and adjacent transmission system(s)" is made in a Standard, we recommend that "transmission system" and "adjacent transmission system(s)" be clearly defined. Based on our recommendations above, this reference would be deleted from FAC-001-1 with the retirement of R3.1.1 and retired with the retirement of FAC-002-1.
Northeast Power Coordinating Council	Yes	R3.1.2 may also be retired since with the recommended revision of FAC-002-1, it is now clear that Transmission Planner and Planning Coordinator have the main role in assessing the new facility connections and therefore “notification of new or modified Facilities to . . . those responsible for the reliability of the interconnected Transmission systems” is redundant.Since FAC-001-1 is applicable only to Transmission Owner and Generator Owner, R3.1.1 could be interpreted as requiring these entities to conduct “joint studies” with the connection applicant. However, as per recommendations for revisions of FAC-002-1 (the above comment) these studies (which are “similar kind of assessment to TPL”) will be conducted by TP and PC (with TO and GO cooperation). Therefore we suggest either combining FAC-001-1 and FAC-002-1 (as recommended in the SAR), or adding clarity for “coordinated joint studies” in R3.1.1.FAC-001 - There may be overlap between FAC-001 and the currently posted VAR-001-1 Standard. VAR-001 Requirement R4 - It appears that this requirement may already be covered by FAC-001-0 Requirement R2 (proposed FAC-001-1 R3).FAC-001 Interconnection Agreement (IA) - NLTCs (no-load tap changers) are typically mechanically-fixed at time of generator interconnection and are only adjusted, if necessary, during a generator outage. The TOP establishes initial voltage and Real Power requirements in the IA under FAC-001. [The need for a NLTCs change, if any, is typically determined by the TOP through periodic, e.g., seasonal or 5-yr., system studies. NLTCs adjustment are determined by and directed by the TOP.] FAC-001-0 R2 states:R2. The Transmission Owner's facility connection requirements shall address ... R2.1.9. Voltage, Reactive Power, and power factor control.This matter is further complicated by a recommendation by the FAC Five-

Organization	Yes or No	Question 4 Comment
		Year team to delete this section in the pending FAC-001-1 (R3). So, where should the requirement(s) be located? There are two separate needs: (a) to establish the initial interconnection voltage and Reactive Power interface requirements, i.e., NLTC settings from an IA voltage and Reactive Power requirement, e.g., responding to 1.0 p.u. +/-5%, and;(b) the need for a periodic review of NLTC settings to account for system changes identified in periodic system studies, e.g., seasonal or 5-year reviews (VAR-001, R6).Questions for consideration: Is there a need to better coordinate the FAC-001 and VAR-001 standards to prevent overlaps and/or gaps? Where do (a) and (b) above belong in FAC-001, VAR-001 or elsewhere?
Southern Company: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing	Yes	The drafting team should consider whether the term “publish” in R1 is clear. If the intended meaning is the same as the dictionary definition of the word - to make generally known/disseminate to the public - then avoiding further explanation gives entities some flexibility. If not, the term could use further explanation in a reference document, with references to examples of what would fulfill the requirement to “publish” in the context of the standard. In support of reliability principle 3, which states that “information necessary for the planning and operation of the interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably”, the term “publish” should only be interpreted as to make the Facility connection requirements available to those entities responsible for planning and operating the systems reliably. In R3.1.2, the term “as soon as feasible” needs some clarity. In addition, notification should include the Reliability Coordinator.

5. **As explained in more detail in the *Five-Year Review Recommendation to Revise FAC-002-1*, the FYRT has proposed several revisions that a drafting team should consider in revising FAC-002-1:**

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

   Do you agree with these proposed revisions? If not, please be specific in identifying the revisions you support and those you do not.

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Yes or No	Question 5 Comment
ACES Standards Collaborators	No	(1) We disagree with splitting Requirement R1 into three separate requirements. Instead, we recommend retiring the coordination aspects for the GO, TO, DP, and LSE. Coordination and cooperation are some of the most difficult and problematic types of requirements to comply with. There are not clear guidelines on the actions that must occur to prove that coordination took place, and it is completely up to the auditor's subjectivity to determine if compliance is met. (2) We disagree that FAC-002-1 "is distinct from TPL-001-4 R2". It states that a Planning Assessment is

Organization	Yes or No	Question 5 Comment
		conducted for existing facilities and FAC-002-1 covers pre-interconnection assessment. TPL-001-4 R2 clearly states that sensitivities must cover "new or modified Transmission Facilities" and "Generation additions, retirements or other dispatch scenarios." These new facilities would be clearly evaluated before they are ever interconnected. Furthermore, interconnection studies are already required by FERC approved tariffs.
City of Austin dba Austin Energy	No	AE agrees with the FYRT's recommendations except for the following comment: AE believes that, with regards to R1.1 for FAC-002, "adjacent Transmission systems" does not need to be explicitly included. ERCOT has a regional process for handling this process which covers adjacent Transmission systems. We expect this is the case in other regions as well.
Idaho Power Company	No	I do not agree that time horizons should be added to each requirement. I think the time horizon should be left to the TP to determine. Future year base cases and/or projected future conditions are based on assumptions. Modeling new interconnected generation and other facilities is immediately contrary to the existing future year assumptions. The TOP knows the most limiting conditions on its system and is then responsible for operating its system with the interconnected facility based on the studied conditions.The proposal to split R1 into three requirements seems reasonable. However, depending on how the proposal is implemented, confusion and/or unecessary or redundant reporting may be added for vertically integrated utilities. In regards to impact to third parties, I don't think that TPs should be responsible for identifying and resolving third parties issues caused by modeling issues (i.e. transient data in base cases). Some specificity of "impact" may be beneficial, but may also create incremental challenges to the TP conducting a study if too specific.The other proposed revisions seem reasonable.
Arizona Public Service Company	No	If R1 is split into 3 separate requirements care needs to be taken in the section for generator owners. If you have a generation interconnection request, the requestor may not be a registered generator owner; therefore, what

Organization	Yes or No	Question 5 Comment
		responsibility/requirement would they have to coordinate and cooperate with the TP/TC? The LGIP/SGIP does have requirements; however the FYRT has stated that, "regardless of what's covered in a tariff, requirements for interconnecting new facilities still need to be addressed in NERC's Reliability Standards." I would make it clear whether Generation Owner means existing registered GOs or also includes entities requesting generation interconnection, yet are not registered GOs.
Northern Indiana Public Service Company	No	NIPSCO supports bullets 1, 2, 6, and 7 above. R1, R1.2 and R2 references to compliance with "NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements should be retained. The reference to "...individual Transmission Owner Planning Criteria..." is especially important because it requires each Transmission Planner's Planning Criteria to be taken into account during a study. This is of great significance because depending upon their location in the grid, some Transmission Owner Planning Criteria needs to be more stringent than others based neighboring system impacts (e.g through flows) on their Bulk Electric System. In order to ensure the system can reliably handle the through flows caused by adjacent RTO, some Transmission Owners have developed more stringent planning criteria to safe guard the reliability of their grid. We want to ensure that our Planning Criteria is taken into account on all studies. The ERO framework established in Order 672 does not address how to handle neighboring system impacts (e.g through flows) on the system. Neither does it establish a framework on considering Individual Transmission Owners Planning Criteria for NERC standards. Order 672 only vaguely talks about regional differences but not the applicability of different transmission owner criteria in the planning study.NIPSCO supports bullet 5 with the following recommendation:The wording "adjacent Transmission systems" needs to be explicitly included in the requirement language of FAC-002-1 R1.1 to account for third party impacts. The phrase "the interconnected Transmission System" alone does not necessarily mean that adjacent systems would be studied. An RTO which oversees the "interconnected Transmission System" spanning several states may not necessarily study an adjacent Transmission Owner's system which is under the

Organization	Yes or No	Question 5 Comment
		jurisdiction of another RTO. This creates a lot of SEAMS issues. The current TPL (001 -004) standards do not explicitly say if a RTO or TP should address reliability concerns of adjacent systems. Therefore, it is imperative we include the wording "adjacent Transmission Systems" at the very least in the FAC standards to at least clarify this ambiguity which was not addressed in the current TPL standards.Current R1.3 ("While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.") should be added to the new R1.1. This ensures that reference to coordination with third parties and end users is included in the standard, adjacent transmission systems are evaluated, and any identified impacts are communicated.
Oncor Electric Delivery	No	Oncor proposes that FAC-002-1 be retired in its entirety due to the following reason. Based on the FYRT's comments, only one requirement, R1, will remain in the Standard. R1 requires Generator Owners, Transmission Owners, Distribution Providers, and Load-Serving Entities "seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities" to "each coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority" to evaluate "the reliability impact of the new facilities and their connections on the interconnected transmission systems", and to perform such assessments in accordance with Reliability Standards TPL-001 – TPL-003. We recommend moving this coordination and cooperation requirement to Reliability Standards TPL-001 – TPL-004 and retiring FAC-002-1 in its entirety.
Manitoba Hydro	Yes	(1) The revisions to split R1 into three separate requirements are acceptable. This allows an assessment to be of the TPL performance by the appropriate entity. Manitoba Hydro is unclear if coordination and cooperation is a reliability requirement.
Colorado Springs Utilities	Yes	No Comments
American Electric Power	Yes	Please see our response to question number 2, however we do not object to these

Organization	Yes or No	Question 5 Comment
		modifications if the industry believes that the standard is required for reliability.
NERC Compliance Policy	Yes	While Dominion agrees with segregating those entities who perform the assessment from those entities that must cooperate and coordinate in the assessment, we do not agree that Generator Owner must be segregated from other entities in the requirements. Having said this, we have no strong opposition to doing so, either.
SPP Sandards Review Group	Yes	While we don't have specific language to review regarding proposed changes to R1, we are concerned that any changes forthcoming may conflict with processes and procedures already in use within SPP. There is a good bit of coordination already within SPP and we need to be assured that our coordinated and collaborative processes will survive any proposed changes.
Northeast Power Coordinating Council	Yes	
Duke Energy	Yes	
Tennessee Valley Authority	Yes	
Southern Company: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing	Yes	
PacifiCorp	Yes	
Bureau of Reclamation	Yes	

Organization	Yes or No	Question 5 Comment
Pepco Holdings Inc	Yes	
Rayburn Electric Cooperative	Yes	
Public Service Enterprise Group	Yes	
Independent Electricity System Operator	Yes	
American Transmission Company, LLC	Yes	
Xcel Energy	Yes	

6. **Are there any additional revisions to FAC-002-1 that you believe are necessary for reliability? If so, please explain those proposed revisions and explain why they are necessary (e.g., to properly apply Paragraph 81 criteria, for clarity, etc.).**

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Yes or No	Question 6 Comment
American Electric Power	No	Please see our response to question number 2.
SPP Sandards Review Group	No	
NERC Compliance Policy	No	
Duke Energy	No	
Tennessee Valley Authority	No	
Southern Company: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation; Southern Company Generation and Energy Marketing	No	
PacifiCorp	No	
Pepco Holdings Inc	No	
Rayburn Electric Cooperative	No	

Organization	Yes or No	Question 6 Comment
Public Service Enterprise Group	No	
Idaho Power Company	No	
Independent Electricity System Operator	No	
Northern Indiana Public Service Company	No	
City of Austin dba Austin Energy	No	
American Transmission Company, LLC	No	
Manitoba Hydro	Yes	(1) The purpose of FAC-002-1 states that the GO, TO and end-users must meet facility connection requirements. This implies reference to FAC-001-1 with some type of requirement to meet the individual connection requirements in R3. However, this is not explicitly stated. The drafting team should consider whether this must be added to FAC-002-1.
Oncor Electric Delivery	Yes	If the retirement of FAC-002-1 is rejected and if the reference to "interconnected transmission systems" is made in a Standard, Oncor recommends keeping the phrase, "interconnected transmission systems" in such Standard. However, if the proposal to change "interconnected transmission systems" to "interconnected transmission system and adjacent transmission system(s)" is made in a Standard, we recommend that "transmission system" and "adjacent transmission system(s)" be clearly defined. Based on our recommendations above, this reference would be deleted from FAC-001-1 with the retirement of R3.1.1 and retired with the retirement of FAC-002-1.

Organization	Yes or No	Question 6 Comment
Colorado Springs Utilities	Yes	R1.1, 1.2, 1.4, and 1.5 are very similar and appear to be repetitive. Clarify, combine, or eliminate to make more clear.
Xcel Energy	Yes	The following item should be added to the drafting team considerations:Determining the applicability of requirements to dispersed generation, including consideration of threshold criteria.
Northeast Power Coordinating Council	Yes	We recommend revising R1.5 in FAC-002-1 to read "Documentation of the study assumptions and system performance requirements considered in the reliability impact assessments in R1.1 and the jointly coordinated conclusions and recommendations of the reliability impact assessments." If the connection applicant proposes more than one alternative, all alternatives will be assessed and documented as per R1.1 and R1.5, otherwise, there will not be any "alternatives considered" to be documented.
ACES Standards Collaborators	Yes	We recommend the FYRT review the Independent Expert Review Report, which contains several recommendations for FAC-002. The experts' recommendation is to merge R1.1 and R1.4 and to retire R1.2, R1.3, and R1.5 because they do not support a reliability objective. Further, Requirements R1, R1.1 and R1.4 are not complete or self-contained because the requirements reference the TPL standards, including to an older version and the phrase "seeking to integrate" is not clear. The experts also recommended revising R1.1 and R1.4 to state "the assessment shall address requirements as identified in the Facility Connection Requirements and their performance requirements as identified in the TPL standards."

7. If you have any other comments on the FAC Five-Year Review Recommendations that you have not already mentioned above, please provide them here:

Summary Consideration: The FYRT thanks all commenters for their input and refers them to the responses above.

Organization	Question 7 Comment
Manitoba Hydro	(1) General Comment - replace “Board of Trustees” with “Board of Trustees’” throughout the applicable documents/standards for consistency with other standards.
ACES Standards Collaborators	(1) The method of posting two separate comment forms for the FAC review project was confusing and unneeded.(2) FYRT did not compare the FAC standards to the existing TPL standards. TPL-001-4 R2 has not been approved by the Commission and assuming that it will be approved is presumptuous. FYRT needs to conduct the comparisons to the existing TPL standards. (3) There is a lack of consistency in the recommendations among the Five Year Review Teams. For example, some teams are suggesting postponement for any revisions to standards that are pending at FERC, while others are recommending making revisions prior to FERC approval. Also, there is overlap with standards projects being reviewed and projects currently under development, which may not be communicated to the separate groups and may result in future revisions. We would like to see the standards reach a steady state, and the majority of the review teams are recommending further revisions.(4) It appears that multiple reviews are occurring in the same relative time period, including the Independent Expert review, which did not provide the review teams with feedback and recommendations. There is no mention that the FYRT had reviewed the expert recommendations prior to performing its review. Also, there are standards, such as TPL or VAR that should be coordinated with for revisions of the FAC standards. (5) Finally, the

Organization	Question 7 Comment
	Independent Expert Report suggested a new construct be adopted by the ERO for NERC Reliability Standards. Under this construct, FAC-001 and FAC-002 would be combined with TPL-001, MOD-010, MOD-012, MOD-025, MOD-026, and MOD-027 to "Assess Transmission Future Needs and Develop Transmission Expansion Plans - Not Operational Planning." Has the Five Year Review Team considered this construct?(6) Thank you for the opportunity to comment.
NERC Compliance Policy	Dominion commends the Five-Year Review Team's effort to identify redundant requirements within these standards and related TPL standards. In addition, the suggested modification to include adding additional sub-requirements to R1 to address requirements based upon the applicable functional responsibility further support clarity of the requirements. Dominion also suggests the SDT consider the consolidation of Reliability Standard FAC-001 and Reliability Standard FAC-002 into a single standard.Dominion questions why team recommended removing many of the sub-requirements in FAC-001 as too prescriptive, yet left many of them in FAC-008-3 (such as 2.2.1-4 and 3.2.1-4). Dominion also suggests that R8 be removed as it is administrative in nature.
Oncor Electric Delivery	FAC-001-1: make Reliability Standards TPL-001 – TPL-004 applicable to Transmission Owner and applicable Generator Owner with respect to "procedures for coordinated joint studies of new Facilities and their impacts on the interconnected Transmission systems", as required under R3.1.1. FAC-002-1: make Reliability Standards TPL-001 – TPL-004 applicable to Generator Owner, Transmission Owner, Distribution Provider and Load-Serving Entity with respect to the coordination and cooperation "on its assessments with its Transmission Planner and Planning Authority" in "seeking to integrate generation facilities, transmission facilities, transmission facilities, and electricity end-user facilities", as required under R1.
Rayburn Electric Cooperative	In summary I feel the applicability of the standards should go to the regions to "establish the Facility connection and performance requirements" (FAC-001

Organization	Question 7 Comment
	Purpose) criteria. Applicable entities (TO, GO, LSE and DP) need to follow the regional established criteria "to meet facility connection and performance requirements" (FAC-002 Purpose). Then combine FAC-001 and FAC-002 together into one standard much like the CIP-001 and EOP-004 merger.
Colorado Springs Utilities	No Comments
PacifiCorp	PacifiCorp appreciates the opportunity to comment and looks forward to the next steps.
Northeast Power Coordinating Council	Retiring R3.1 and R3.1.3 to R3.1.16 in FAC-001-1 will resolve the major flaw in this standard.As mentioned above, FAC-001 and FAC-002 should not be combined.
Independent Electricity System Operator	This is perhaps preemptive or premature but there are draft standards recently posted that propose effective dates and implementation plan that may conflict with the Ontario regulation with respect to making NERC standards effective in Ontario. We therefore kindly remind the SDT to ensure that in the Effective Dates Section of the standard, as well as in the implementation plan, to clearly state that:In those jurisdictions where regulatory approval is required, this standard shall become effective on the xxx day of the yyy calendar quarter after applicable regulatory approval, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities. In those jurisdictions where no regulatory approval is required, this standard shall become effective on the xxx day of the yyy calendar quarter after Board of Trustees approval.
SPP Sandards Review Group	We would support the effort to combine FAC-001 and FAC-002.

END OF REPORT