NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Meeting Agenda
Five-Year Review of FAC Standards

September 30, 2013 | 1-5 p.m. Eastern
October 1, 2013 | 8 a.m.-5 p.m. Eastern
October 2, 2013 | 8 a.m.-Noon Eastern

Con Edison
4 Irving Place
NY, NY 10003

Dial-in: 866.740.1260 | Access Code: 6191629 | Security Code: 093013
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Administrative

1. **NERC Antitrust Compliance Guidelines, Public Announcement, Participant Conduct Policy, and Email List Policy***
2. **Introductions**
3. **Meeting Logistics**
4. **Meeting Agenda and Objectives**

Agenda Items

1. **Miscellaneous Updates**
   a. FAC-001-1 and FAC-003-3
   b. FAC-008-3 RSAW
   c. Regional Variances in FAC-010-2.1 and FAC-011-2
   d. FAC-501-WECC-1
2. **Review Key Issues from Comment Reports and Develop Draft Responses**
   a. Comment Report for FAC-001-1 and FAC-002-1*
   b. Comment Report for FAC-003-3, FAC-008-3, FAC-010-2.1, FAC-011-2, FAC-013-2, FAC-014-2*
3. **Finalize Recommendations; Update SAR and Redline Standards**
   a. FAC-001-1*
   b. FAC-002-1*

c. Standard Authoritzation Request for FAC-001-1 and FAC-002-1*
d. FAC-003-3*
e. FAC-008-3*
f. FAC-013-2*
g. FAC-010-2.1, FAC-011-1, FAC-014-2*

4. **Finalize Consideration of Comments Reports**
5. **Finalize Redline Standards**
6. **Next Steps**
   a. Transitioning to Formal Development
   b. Review Action Plan*
7. **Informational Items**
   a. FYRT Roster*
8. **Future Meeting Dates**
   a. TBD
9. **Adjourn**

*Background materials included.

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Antitrust Compliance Guidelines

I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.
- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.

- Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

III. Activities That Are Permitted

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.

Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

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Public Announcements

REMINDER FOR USE AT BEGINNING OF MEETINGS AND CONFERENCE CALLS THAT HAVE BEEN PUBLICLY NOTICED AND ARE OPEN TO THE PUBLIC

Conference call version:
Participants are reminded that this conference call is public. The access number was posted on the NERC website and widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

Face-to-face meeting version:
Participants are reminded that this meeting is public. Notice of the meeting was posted on the NERC website and widely distributed. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

For face-to-face meeting, with dial-in capability:
Participants are reminded that this meeting is public. Notice of the meeting was posted on the NERC website and widely distributed. The notice included the number for dial-in participation. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

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Standards Development Process Participant Conduct Policy

I. General

To ensure that the standards development process is conducted in a responsible, timely and efficient manner, it is essential to maintain a professional and constructive work environment for all participants. Participants include, but are not limited to, members of the standard drafting team and observers.

Consistent with the NERC Rules of Procedure and the NERC Standard Processes Manual, participation in NERC's Reliability Standards development balloting and approval processes is open to all entities materially affected by NERC's Reliability Standards. In order to ensure the standards development process remains open and to facilitate the development of reliability standards in a timely manner, NERC has adopted the following Participant Conduct Policy for all participants in the standards development process.

II. Participant Conduct Policy

All participants in the standards development process must conduct themselves in a professional manner at all times. This policy includes in-person conduct and any communication, electronic or otherwise, made as a participant in the standards development process. Examples of unprofessional conduct include, but are not limited to, verbal altercations, use of abusive language, personal attacks or derogatory statements made against or directed at another participant, and frequent or patterned interruptions that disrupt the efficient conduct of a meeting or teleconference.

III. Reasonable Restrictions in Participation

If a participant does not comply with the Participant Conduct Policy, certain reasonable restrictions on participation in the standards development process may be imposed as described below.
If a NERC Standards Developer determines, by his or her own observation or by complaint of another participant, that a participant's behavior is disruptive to the orderly conduct of a meeting in progress, the NERC Standards Developer may remove the participant from a meeting. Removal by the NERC Standards Developer is limited solely to the meeting in progress and does not extend to any future meeting. Before a participant may be asked to leave the meeting, the NERC Standards Developer must first remind the participant of the obligation to conduct himself or herself in a professional manner and provide an opportunity for the participant to comply. If a participant is requested to leave a meeting by a NERC Standards Developer, the participant must cooperate fully with the request.

Similarly, if a NERC Standards Developer determines, by his or her own observation or by complaint of another participant, that a participant's behavior is disruptive to the orderly conduct of a

teleconference in progress, the NERC Standards Developer may request the participant to leave the teleconference. Removal by the NERC Standards Developer is limited solely to the teleconference in progress and does not extend to any future teleconference. Before a participant may be asked to leave the teleconference, the NERC Standards Developer must first remind the participant of the obligation to conduct himself or herself in a professional manner and provide an opportunity for the participant to comply. If a participant is requested to leave a teleconference by a NERC Standards Developer, the participant must cooperate fully with the request. Alternatively, the NERC Standards Developer may choose to terminate the teleconference.

At any time, the NERC Director of Standards, or a designee, may impose a restriction on a participant from one or more future meetings or teleconferences, a restriction on the use of any NERC-administered list server or other communication list, or such other restriction as may be reasonably necessary to maintain the orderly conduct of the standards development process. Restrictions imposed by the Director of Standards, or a designee, must be approved by the NERC General Counsel, or a designee, prior to implementation to ensure that the restriction is not unreasonable. Once approved, the restriction is binding on the participant. A restricted participant may request removal of the restriction by submitting a request in writing to the Director of Standards. The restriction will be removed at the reasonable discretion of the Director of Standards or a designee.

Any participant who has concerns about NERC's Participant Conduct Policy may contact NERC's General Counsel.

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NERC Email List Policy

NERC provides email lists, or "listservs," to NERC committees, groups, and teams to facilitate sharing information about NERC activities; including balloting, committee, working group, and drafting team work, with interested parties. All emails sent to NERC listserv addresses must be limited to topics that are directly relevant to the listserv group's assigned scope of work. NERC reserves the right to apply administrative restrictions to any listserv or its participants, without advance notice, to ensure that the resource is used in accordance with this and other NERC policies.

Prohibited activities include using NERC-provided listservs for any price-fixing, division of markets, and/or other anti-competitive behavior.[1] Recipients and participants on NERC listservs may not utilize NERC listservs for their own private purposes. This may include announcements of a personal nature, sharing of files or attachments not directly relevant to the listserv group's scope of responsibilities, and/or communication of personal views or opinions, unless those views are provided to advance the work of the listserv's group. Use of NERC's listservs is further subject to NERC's Participant Conduct Policy for the Standards Development Process.

- *Updated April 2013*

[1] Please see NERC's Antitrust Compliance Guidelines for more information about prohibited antitrust and anti-competitive behavior or practices. This policy is available at http://www.nerc.com/commondocs.php?cd=2

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Consideration of Comments

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

The Project 2010-02 FAC Five-Year Review Team thanks all who submitted comments on the FAC-001-1 and FAC-002-1 standards. The standards were posted for a 45-day comment period from August 1, 2013 through September 16, 2013. Stakeholders were asked to provide feedback on the standards 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.

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:

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:

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:

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:

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:

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:

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:

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

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Five-Year Review of FAC Standards

The Project 2010-02 FAC Five-Year Review Team thanks all commenters who submitted comments on the FAC-003-3, FAC-008-3, FAC-010-2.1, FAC-011-2, FAC-013-2, and FAC-014-2 standards. The standards were posted for a 45-day comment period from August 1, 2013 through September 16, 2013. Stakeholders were asked to provide feedback on the standards and associated documents through a special electronic comment form. There were 21 sets of responses, including comments from approximately 69 different people from approximately 54 companies representing 9 of the 10 Industry Segments as shown in the table on the following pages.

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/files/Appendix_3A_StandardsProcessesManual_20120131.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.	Michael Jones	National Grid	NPCC	1
8.	Mark Kenny	Northeast Utilities	NPCC	1
9.	Ayesha Sabouba	Hydro One Networks Inc.	NPCC	1
10.	Kathleen Goodman	ISO - New England	NPCC	2
11.	Christina Koncz	PSEG Power LLC	NPCC	5

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

12.	Michael Lombardi	Northeast Power Coordinating Council	NPCC	10
13.	Bruce Metruck	New York Power Authority	NPCC	6
14.	Silvia Parada Mitchell	NextEra Energy, LLC	NPCC	5
15.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
16.	Robert Pellegrini	The United Illuminating Company	NPCC	1
17.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
18.	Brian Robinson	Utility Services	NPCC	8
19.	Brian Shanahan	National Grid	NPCC	1
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.	Helen Lainis	Independent Electricity System Operator	NPCC	2
25.	Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
26.	Randy MacDonald	New Brunswick Power Transmission	NPCC	9

2.	Group	Janet Smith	Arizona Public Service Company	X		X		X	X				

No additional responses provided.

3.	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

4.	Group	Ben Engelby	ACES Standards Collaborators						X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Shaver	Arizona Electric Power Cooperative/Southwest	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.	RFC	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

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
5.	Group	Robert Rhoders	SPP Standards Review Group		X								

	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
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	SPP	3
7.	Kevin Nincehelser	Westar Energy	SPP	1, 3, 5, 6
8.	Don Taylor	Westar Energy	SPP	1, 3, 5, 6

6.	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 Gartom	Dominion	NPCC	5, 6
4.	Randi Heise	Dominion	MRO	5, 6

7.	Group	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				
No additional responses provided.													
8.	Group	Kelly Cumiskey	PacifiCorp	X		X		X	X				
No additional responses provided.													
9.	Group	Erika Doot	Bureau of Reclamation	X				X					
No additional responses provided.													
10.	Individual	Tammy Porter	Oncor	X		X							
11.	Individual	John Seelke	Public Service Enterprise Group	X		X		X	X				
12.	Individual	Nazra Gladu	Manitoba Hydro	X		X		X	X				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
13.	Individual	David Thorne	Pepco Holdings Inc	X		X							
14.	Individual	Barbara Kedrowski	Wisconsin Electric Power			X	X	X					
15.	Individual	Thomas Foltz	American Electric Power	X		X		X	X				
16.	Individual	Michael Falvo	Independent Electricity System Operator		X								
17.	Individual	Julaine Dyke	Northern Indiana Public Service Company	X		X		X	X				
18.	Individual	Andrew Gallo	City of Austin dba Austin Energy	X		X	X	X	X				
19.	Individual	Andrew Z. Pusztai	American Transmission Company, LLC	X	X								
20.	Individual	Cheryl Moseley	Elecctric Reliability Council of Texas, Inc.										
21.	Individual	Alice Ireland	Xcel Energy	X		X		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:

Organization	Agree	Supporting Comments of "Entity Name"
N/A	N/A	N/A

1. **As explained in more detail in the Five-Year Review Recommendation to Affirm FAC-003-3, the FYRT believes that FAC-003-3 includes technically justified, clear requirements and recommends affirming it. Do you agree that FAC-003-3 should be affirmed? If not, please explain. (Note that if FERC does not approve FAC-003-3, this recommendation will apply to FAC-003-2.)**

Summary Consideration:

Organization	Yes or No	Question 1 Comment
ACES Standards Collaborators	No	FAC-003-3 should not be affirmed because it is still pending FERC approval. We also disagree that FAC-003-2 should be affirmed in the event that FERC does not approve FAC-003-3. Based on the review team's logic of delaying FAC-010, -011, and -014 until FERC acts on the pending standards, why wouldn't the same reasoning apply to FAC-003-3? FAC-003-3 should not be affirmed; rather the review should be delayed until the Commission has issued a final order.
Wisconsin Electric Power	No	We appreciate the work of the FYRT in their review of these standards. However, we believe FAC-003-3 has a flaw which should be corrected at this opportunity. The requirement for a "clear line of sight" unnecessarily requires Generator Owners having very short generator interconnection leads to meet the

Organization	Yes or No	Question 1 Comment
		vegetation management requirements designed for transmission circuits that have far greater exposure and risk. The applicability based on length of the circuit alone (greater than one mile) is entirely sufficient to assure that the BES is not at risk due to vegetation issues on generator interconnection leads. We wish to note that this also was the conclusion of the original GO-TO Task Force. The reliability risk of vegetation problems on overhead lines at the Generator-Transmission interface is almost zero. The requirement for Generator Owners to develop vegetation management programs for these short lines is counterproductive to reliability in that it will expend scarce resources for compliance that are better used for actual reliability improvements. Therefore, we urge the FYRT to recommend revisions to FAC-003-3 that will better utilize industry resources while still limiting risk of vegetation related outages.
SPP Standards Review Group	Yes	Even though it has been somewhat confusing in reading through the posted package and having to swap back and forth from one version of the standard to another.

Organization	Yes or No	Question 1 Comment
Northeast Power Coordinating Council	Yes	This is a recently approved standard and is being included in the five year review so as to make the review by standards family complete. Affirmation is the appropriate approach.
Arizona Public Service Company	Yes	
Duke Energy	Yes	
NERC Compliance Policy	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	Yes	
Public Service Enterprise Group	Yes	
Pepco Holdings Inc	Yes	
American Electric Power	Yes	

Organization	Yes or No	Question 1 Comment
Independent Electricity System Operator	Yes	
Northern Indiana Public Service Company	Yes	
City of Austin dba Austin Energy	Yes	
American Transmission Company, LLC	Yes	
Xcel Energy	Yes	

2. **As explained in more detail in the Five-Year Review Recommendation to Affirm FAC-008-3, the FYRT believes that FAC-008-3 includes technically justified, clear requirements and recommends affirming it, with some clarifying modifications to the FAC-008-3 Reliability Standard Audit Worksheet. Do you agree that FAC-008-3 should be affirmed? If not, please explain.**

Summary Consideration:

Organization	Yes or No	Question 2 Comment
Northeast Power Coordinating Council	No	The Facility Rating required by FAC-008 is purely a NERC compliance activity in many regions. The specificity in which the requirements are written precludes entities from using the actual ratings provided to their RC/PC/TP/TO/TOP as evidence in support of the requirements. For example, ISO-NE uses the NX-9 and NX-12 documents to gather the data necessary, while ERCOT used the RARF process. Neither of the processes provides the rating in a format that would be fully compliant with FAC-008-3. It is an unnecessary burden for entities to maintain multiple facility ratings. Additionally, auditors are aware of this discrepancy and generally request both ratings.The standard should be revised to either: o require all RC's to only request Facility Ratings which are developed in

Organization	Yes or No	Question 2 Comment
		accordance with FAC-008 or o allow any Facility Rating that complies with an RC Facility Rating request be an acceptable method for compliance with FAC-008.Because of the prescriptive nature of FAC-008, a separate rating methodology and rating must be developed for compliance. Developing two separate ratings using two separate methodologies does not support the reliability of the BES. One rating for a facility, along with the appropriate documentation, should be sufficient.
ACES Standards Collaborators	No	We recommend that FAC-008-3 be revised instead of affirmed. There are several modifications that could improve the standard. For instance, we suggest retiring R8 and rewriting R7 to read "Each TO and GO..." Also, there are several requirements (R1 part 1.1, part 1.2, and R2 sub-parts) that are more appropriate a technical guideline rather than a standard. FAC-008-3 has several requirements and sub-parts that could be clarified, retired under Paragraph 81, or moved to a technical guideline. The standard should be revised to address these issues.
NERC Compliance Policy	No	Dominion questions why team recommended removing many of the sub-

Organization	Yes or No	Question 2 Comment
		requirements in FAC-001 as too prescriptive, yet left many of them in FAC-008-3 (such as 2.2.1-2.2-4 and 3.2.1-3.2.4). Dominion also suggests that R8 in its entirety, be removed as it is administrative in nature. Dominion recommends including the undefined term "terminal equipment" in R2.4.1 and R3.4.1 as a new definition in the Standard only, the NERC Glossary of Terms Used in Reliability Standards rather than including a definition in the FAC-008-3 RSAW. For reasons cited above, Dominion recommends REVISING this standard rather than RE-AFFIRMING.Dominion was unable to locate the clarification of the undefined term in RSAW_FAC-008-3_2013_v2. In addition, Dominion notes that the FAC-008-3 RSAW Version notation is identified as RSAW Version: RSAW_EOP-005-2_2013_v1 on the FAC-008-3 - Facility Ratings RSAW document cover page.Dominion suggests that NERC reviews CAN-0009 for its accuracy, as FAC-009-1 was inactive on 12/31/2012.
Northern Indiana Public Service Company	No	NIPSCO does not agree that clarification can be offered through a revised FAC-008-3 RSAW without also modifying the standard itself. The RSAW points back to and addresses each sub-requirement in

Organization	Yes or No	Question 2 Comment
		the standard line by line. If an issue is not corrected in the standard, how is it possible for an RSAW to address ambiguities?There are inconsistencies between R2.1 and R2.2 and also between R3.1 and R3.2. R2.1 and R3.1 both state ("...at least one of the following...") and R2.2 and R3.2 both state ("...how each of the following were..."). NIPSCO suggests combining R2.1 and R2.2 and also R3.1 and R3.2 into one requirement, retaining the statement ("...at least one of the following..."), and eliminating the statement ("...how each of the following were..."). In doing this, R2.2.1, R2.2.2, R3.2.1 and R3.2.2 should be deleted and removed from the standard since they are already addressed in R2.1 and R3.1. This concept may be redundant (Criterion B7) per paragraph 81. Further clarification is requested on the requirements R1.1 versus R2.1/R3.1. Why is there an ambiguous difference in this verbiage? In R1.1, the first bullet point is a paraphrase of the first and second bullet points of R2.1/R3.1. R1.1 bullet point two seems to be a wordier restatement of R2.1/R3.1 bullet point three. What is intended by not stating these requirements with identical wording?

Organization	Yes or No	Question 2 Comment
Xcel Energy	No	We believe FAC-008-3 should be modified to address and clarify the applicability of requirements to dispersed generation. In its deliberations, the drafting team should consider the development of threshold criteria, as it would pertain to a dispersed generation facility.
Arizona Public Service Company	Yes	
Duke Energy	Yes	
SPP Standards Review Group	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	
Oncor	Yes	
Public Service Enterprise Group	Yes	
Manitoba Hydro	Yes	
Pepco Holdings Inc	Yes	

Organization	Yes or No	Question 2 Comment
Wisconsin Electric Power	Yes	
American Electric Power	Yes	
Independent Electricity System Operator	Yes	
City of Austin dba Austin Energy	Yes	
American Transmission Company, LLC	Yes	
Bureau of Reclamation		Reclamation believes that the ambiguous language related to 'terminal equipment' and facility ratings addressed in CANs should be corrected in the standard rather than in RSAWs.

3. **As explained in more detail in the Five-Year Review Recommendation to Affirm FAC-013-2, the FYRT believes that FAC-013-2 includes technically justified, clear requirements and recommends affirming it. Do you agree that FAC-013-2 should be affirmed? If not, please explain**.

Summary Consideration:

Organization	Yes or No	Question 3 Comment
ACES Standards Collaborators	No	FAC-013-2 could be combined with MOD-001 (TOP and TSP in operations horizon). If MOD -001, -028, -029 and -030 are retired, there may be a gap for the near term operating horizon and revising FAC-013-3 could address the gap for the near term planning horizon and the operational planning horizon. Also, there is a need to review the standard's use of "transfer capability" and "total transfer capability," as these seem to be redundant or difference is not clear. Finally, Requirements R1 parts 1.2 and 1.3, R2, R5, and R6 meet the Paragraph 81criteria for retirement. Based on these reasons, we believe that FAC-013-2 should be revised and not affirmed.
Elecctric Reliability Council of Texas, Inc.	No	ERCOT is the Planning Coordinator for the ERCOT Region, which is the sole functional entity impacted by FAC-013. ERCOT is

Organization	Yes or No	Question 3 Comment
		established as the ERCOT ISO pursuant to the Texas Public Utility Regulatory Act. Additionally, FAC-013-2 is related to the Modeling, Data, and Analysis ("MOD") Reliability Standards approved in FERC Order 729. In that Order, the Commission exempted ERCOT from the MOD standards because of the unique regional differences related to the ERCOT transmission system. The basis for the exemption in Order 729 applies to FAC-013-2 as well. Subjecting ERCOT to FAC-013 merely creates compliance obligations (and corresponding risk) with no reliability benefit.Order 729 exempted ERCOT from the MOD standards approved therein because the concepts did not apply in the ERCOT Region due to regional differences. FAC-013-2 applies those same concepts to the planning horizon. The ERCOT region does not have a transmission market and ERCOT manages congestion by employing a security constrained economic dispatch. ERCOT has no interchange with neighboring regions. The lack of a transmission market and congestion management via re-dispatch means that all available transmission capacity on the ERCOT grid is fully utilized, subject only to relevant reliability limits. Quantitative calculations related to transmission transfer capability

Organization	Yes or No	Question 3 Comment
		in the ERCOT Region provides no value from a reliability or market perspective.Therefore, similar to the MOD standards, FAC-013 should not apply to ERCOT. FAC-013 should be revised to include an exemption in Section E. Regional Variances that exempts ERCOT. In the past, ERCOT's position has been supported by the NERC Regional Entity for the ERCOT Region, the Texas Reliability Entity ("Texas RE").
Northeast Power Coordinating Council	Yes	
Arizona Public Service Company	Yes	
Duke Energy	Yes	
SPP Standards Review Group	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 3 Comment
Public Service Enterprise Group	Yes	
Manitoba Hydro	Yes	
American Electric Power	Yes	
Independent Electricity System Operator	Yes	
Northern Indiana Public Service Company	Yes	
City of Austin dba Austin Energy	Yes	
American Transmission Company, LLC	Yes	

4. **As explained in more detail in the Five-Year Review Recommendation to Delay Review of FAC-010-2.1, FAC-011-2, and FAC-014-2, the FYRT believes that all three standards require revision to add clarity and remove redundancy with the newly revised TOP and TPL standards, but that a thorough review of these standards should be delayed until FERC acts on TOP-001-2, TOP-002-3, TOP-003-2, and TPL-001-4. Do you agree that review of FAC-010-2.1, FAC-011-2, and FAC-014-2 should be delayed? If not, please explain.**

Summary Consideration:

Organization	Yes or No	Question 4 Comment
Duke Energy	No	Duke Energy recommends an initial review of FAC-010-2.1, FAC-011-2, and FAC-014, by the FAC FRYT, to determine if a potential reliability gap would be created by delaying the review of these standards.In particular Duke Energy would like assurance that outage plans are assessed for their impact on reliability sufficiently ahead of time and when plans are modified. The TOP SDT team identified FAC-011 and FAC-014 as providing these type of assessments. When transmission and generation outage plans are made, assessments must be conducted to ensure reliability of the BES. These assessments should be conducted seasonally up to day ahead. It is no longer clear that the IRO, FAC and TOP standards act together to ensure proper assessments are performed.

Organization	Yes or No	Question 4 Comment
		The Independent Experts Review Project identified Outage Coordination as a key area of concern where risk to BPS reliability was not adequately mitigated by the Reliability Standards.
NERC Compliance Policy	No	Dominion does not agree with recommendation to delay review of FAC-010-2.1, FAC-011-2, and FAC-014-2 until FERC acts on TOP-001-2-Transmission Operations, TOP-002-3-Operations Planning, and TOP-003-2-Operational Reliability Data. These purpose of these FAC standards is to insure that limits (including SOL and IROL) are established whereas the purpose of the cited TOP and TPL standards is to insure information is provided and plans in place to adhere to limits (including SOL and IROL).
Elecctric Reliability Council of Texas, Inc.	No	1. FAC-010-2.1 R2 is redundant with the TPL standards and should be removed. R2 and its sub-requirements have contingency performance requirements that are the same as Table 1 of the TPL standards.2. The use of the term “Remedial Action Plans” in FAC-010-2.1 R3.4 is incorrect and should be removed. This is not a defined term. It may be referring to “Remedial Action Scheme” which is a defined term but is redundant with the term “Special

Organization	Yes or No	Question 4 Comment
		Protection System" that is already used in R3.4.3. FAC-014-2 R6 should be rewritten to consider the new TPL-001-4 standard and the multitude of contingencies that could result in a stability limit. Since TPL-003 will be retired upon implementation of TPL-001-4 the reference will be obsolete. Additionally, a revision should take into consideration that multiple types of P contingencies in the new Table 1 or even an extreme event may cause the creation of an SOL due to a stability limit - not just a Category C contingency as contemplated in the current standard.
ACES Standards Collaborators	Yes	It is proper to delay the review of standards that are pending FERC approval. We have included overlap issues that are associated with these standards when they are ripe for review.
Northeast Power Coordinating Council	Yes	
Arizona Public Service Company	Yes	
SPP Standards Review Group	Yes	
Southern Company: Alabama Power Company; Georgia Power Company; Gulf Power Company; Mississippi Power Company; Southern Company Generation;	Yes	

Organization	Yes or No	Question 4 Comment
Southern Company Generation and Energy Marketing		
PacifiCorp	Yes	
Bureau of Reclamation	Yes	
Oncor	Yes	
Public Service Enterprise Group	Yes	
Manitoba Hydro	Yes	
Pepco Holdings Inc	Yes	
American Electric Power	Yes	
Independent Electricity System Operator	Yes	
Northern Indiana Public Service Company	Yes	
City of Austin dba Austin Energy	Yes	
American Transmission Company, LLC	Yes	

5. **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:

Organization	Question 5 Comment
Northeast Power Coordinating Council	The PDF of the standard refers to M7 and M8 on the bottom of page 5. There is an R7 and R8, but no corresponding M7 and M8. M5 and M6 reference R7 and R8.The Generator Owner shall keep evidence for Measure M7 for three calendar years... The Transmission Owner (and Generator Owner that is subject to Requirement R2) shall keep evidence for Measure M8 for three calendar years.
ACES Standards Collaborators	There are other standards besides the TOP and TPL standards that overlap with FAC-011 and FAC-014. The standards project that is developing the VAR standards also overlaps with the FAC requirements. In particular, the proposed VAR-001-4 R1 is redundant with FAC-011-2 and FAC-014-2 and, thus, meets paragraph 81 criteria. FAC-014-2 R2 requires each TOP to establish SOLs for its transmission system that is consistent with the RC SOL methodology. FAC-011-2 R2 compels the RC to develop a SOL methodology that requires SOLs to consider voltage, thermal, and stability limits (including voltage) and demonstrate that the BES remains stable (transient, dynamic and voltage) during pre-contingent (R2.1) and post-contingent (R2.2)

Organization	Question 5 Comment
	conditions. FAC-014-2 R6 compels the Planning Coordinator to identify which Category C (multiple) contingencies from TPL-003 that result in stability limits (including voltage) and to communicate the list of Category C (multiple) contingencies along with the stability limits to the RC. FAC-011-2 further compels the RC to establish a process for identifying which stability limits associated with multiple contingencies identified by the Planning Coordinator are applicable in the operating horizon within its SOL methodology. FAC-014-2 R5.2 compels the TOP to communicate its SOLs to its RC and TSP and FAC-014-2 R5.1 compels the RC to communicate the SOLs to neighboring RCs and other TOPs among a list of other entities. Finally, existing TOP-002-2.1b R10 and proposed TOP-002-3 R2 both require the TOP to operate within SOLs. Thus, the combination of FAC-011-2 and FAC-014-2 compel the establishment and communication of SOLs within the TOP footprint that already consider the items such as steady-state voltage limits and voltage stability limits compelled in proposed VAR-001-4 R1 and its subparts and TOP-002 compels the TOP to operate within those SOLs. These overlaps need to be reviewed and justify a recommendation for revising the FAC-011 and FAC-014.
Manitoba Hydro	(1) General Comment - replace “Board of Trustees” with “Board of Trustees’” throughout the applicable documents/standards for consistency with other standards.

END OF REPORT

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Five-Year Review Recommendation to Revise FAC-001-1: Facility Connection Requirements

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.[1] FAC-001 is due for a review; it has not been substantially revised since it became enforceable on June 18, 2007.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **REVISING** FAC-001-1. Alongside this recommendation, the FYRT has posted a draft Standard Authorization Request (SAR) for information.

Note: FAC-001-0 is the mandatory and enforceable version of FAC-001. It has been enforceable since June 18, 2007. On February 9, 2012, the NERC Board of Trustees approved a surgical change to add a requirement for Generator Owners to FAC-001-0, making it FAC-001-1. While FAC-001-1 has not been approved by FERC, a Notice of Proposed Rulemaking was issued on April 18, 2013 proposing to approve it. Because it appears likely that FAC-001-1 will be approved, and because the changes in that version do not materially change the existing requirements in FAC-001-0, the FYRT elected to review FAC-001-1. Throughout this document, the team refers to FAC-001-1, unless it is referencing compliance or enforcement, in which case FAC-001-0 is appropriately referenced.

[1] The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-001-1
Team Members: 1. John Beck (Chair), Consolidated Edison Co. of New York 2. Michael Steckelberg (Vice Chair), Great River Energy 3. Brian Dale, Georgia Power Company 4. Ruth Kloecker, ITC Holdings 5. Stewart Rake, Luminant Generation Company 6. Ganesh Velummylum, Northern Indiana Public Service Company 7. Mallory Huggins (Lead Standards Developer), NERC 8. Sean Cavote (Supporting Standards Developer), NERC 9. Ed Dobrowolski (Supporting Standards Developer), NERC
Date Review Completed: 07/19/13

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard? (If so, NERC staff will attach a list of the directives with citations to associated FERC orders for inclusion in a SAR.)

   ☐ Yes
   ☒ No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

   ☐ Yes
   ☒ No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

   ☐ Yes
   ☒ No

   Please explain: FAC-001-0 was not among the 20 most violated standards in 2012.[2]

   All the requirements in FAC-001-0 do appear on the 2013 Actively Monitored List.[3] R2, R2.1, R2.1.1, R2.1.5, and R2.1.14 are Tier 1; R2.1.4 and R2.1.16 are Tier 2; R1 and its subparts, R2.1.1, R2.1.3, R2.1.6 through R2.1.13, R2.1.15, and R3 are Tier 3.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to

[2] The 2012 Compliance Monitoring and Evaluation Annual Report can be found here: http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.
[3] The 2013 Actively Monitored List can be found here: http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Enerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

☒ Yes

☐ No

Questions for SME Review Team

1. **Paragraph 81**: Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

   ☒ Yes

   ☐ No

   Please summarize your application of Paragraph 81 Criteria, if any: The FYRT believes that each of the requirements in FAC-001-1 contains elements that should be considered for retirement under Paragraph 81 criteria.

   Currently, R1 and R2 read as follows:

   R1. The Transmission Owner shall document, maintain, and publish Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements. The Transmission Owner's Facility connection requirements shall address connection requirements for:

   1.1. Generation Facilities,
   1.2. Transmission Facilities, and
   1.3. End-user Facilities

   R2. Each applicable Generator Owner shall, within 45 days of having an executed Agreement to evaluate 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 (under FAC-002-1), document and publish its Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.

   Both R1 and R2 contain references to compliance with "NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements." A similar reference is contained in FAC-002-1, R1.2, which also requires the ensurance of compliance with "NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements of the impacted systems." While the entities to which these requirements are assigned differ, the concepts are redundant (Criterion B7) and possibly not necessary for reliability, as the requirement to comply with NERC Reliability Standards, applicable Regional criteria, etc. is

built into the ERO framework established in Order 672.[4] A drafting team may determine that the language is not necessary in either standard, but if this language is deemed necessary for reliability, it should be retained in FAC-002-1, R1.2 and removed from FAC-001-1, R1 and R2.

Additionally, the FYRT believes that subparts R3.1 and R3.1.3 through R3.1.16 are not necessary for reliability (Criterion A) and are redundant (Criterion B7) or generally too prescriptive to be contained in a standard. Currently, R3 reads as follows:

R3. Each Transmission Owner and each applicable Generator Owner (in accordance with Requirement R2) shall address the following items in its Facility connection requirements:

3.1. Provide a written summary of its plans to achieve the required system performance as described in Requirements R1 or R2 throughout the planning horizon:

3.1.1. Procedures for coordinated joint studies of new Facilities and their impacts on the interconnected Transmission systems.
3.1.2. Procedures for notification of new or modified Facilities to others (those responsible for the reliability of the interconnected Transmission systems) as soon as feasible.
3.1.3. Voltage level and MW and MVAR capacity or demand at point of connection.
3.1.4. Breaker duty and surge protection.
3.1.5. System protection and coordination.
3.1.6. Metering and telecommunications.
3.1.7. Grounding and safety issues.
3.1.8. Insulation and insulation coordination.
3.1.9. Voltage, Reactive Power, and power factor control.
3.1.10. Power quality impacts.
3.1.11. Equipment Ratings.
3.1.12. Synchronizing of Facilities.
3.1.13. Maintenance coordination.
3.1.14. Operational issues (abnormal frequency and voltages).
3.1.15. Inspection requirements for existing or new Facilities.
3.1.16. Communications and procedures during normal and emergency operating conditions.

R3.1 is redundant with the main requirement and reads like a Measure. The FYRT recommends that R3.1 be retired. The list of items in 3.1.3 through 3.1.16 is too prescriptive; the purpose of the standard is to require entities to have Facility connection requirements, not to prescribe what is contained within those requirements. For instance, the requirements to address "grounding and

[4] *Order* 672 – *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards* is posted here: http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/final_rule_reliability_Order_672.pdf.

safety issues" in 3.1.7 and "power quality impacts" in 3.1.10 are distribution level matters that are under the purview of state public service commissions. The FYRT believes 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. Thus, R3.1 and R3.1.3 through R3.1.16 should also be considered for retirement under P81 criteria, and possibly for transfer into a guidance document.

Finally, the FYRT recommends that Requirement R4 be considered for removal in its entirety because it is not reliability-related (Criterion A) and it is redundant both with Requirement R1 and with NERC's Rules of Procedure (Criterion B7). Currently, R4 reads as follows:

> **R4.** The Transmission Owner shall maintain and update its Facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Entity, and ERO on request (five business days).

The requirement to maintain and update Facility connection requirements in Requirement R4 is partly contained in Requirement R1's language to "document, maintain, and publish." If "update" must be retained, it can be added to that list of required actions in R1. The second sentence of Requirement R4, which requires Transmission Owners to make documentation available, is redundant with the "publish" requirement in R1. Further, requests to share data or information to Regional Entities and the ERO upon request are already addressed in Section 1600 of NERC's Rules of Procedure. R4 should also be considered for retirement under P81 criteria.

During Phase 1 of the Paragraph 81 process, the review team received some comments suggesting that R1 and R2 of FAC-001-0 be retired because they relate to documentation. 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. The development and documentation of these Facility connection requirements facilitates the assessment process that takes place in FAC-002-1.

And although Facility connection requirements are typically covered in tariffs or other similar documents, the requirement for Open Access Transmission Tariffs 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. What's more, there would be no market-based requirements (in the forms of tariffs or otherwise) for the non-jurisdictional entities that fall in NERC's footprint. Ultimately, the team agreed that Facility connection requirements are necessary for reliability and should continue to be explicitly addressed in NERC standards.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

    a. Is this a Version 0 Reliability Standard?
    b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
    c. Are the requirements consistent with the purpose of the Reliability Standard?

    ☐ Yes

    ☒ No

    Please summarize your assessment: This is a Version 0 Reliability Standard, and the FYRT believes there are opportunities to add clarity to some of the requirements.

    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.

    The FYRT also does not believe that it is clear, in R3.1.1 and R3.1.2, whether "the interconnected Transmission Systems" include adjacent Transmission system(s). A drafting team should consider whether adjacent Transmission systems need to be explicitly included in the requirement language.

    Finally, the purpose of the standard reads: "To avoid adverse impacts on reliability, Transmission Owners must establish facility connection and performance requirements." The FYRT recommends that the purpose statement be considered for editing, because performance requirements are not as clearly included in the standard as facility connection requirements are.

3. **Definitions**: Do any of the defined terms used within the Reliability Standard need to be refined?

    ☐ Yes

    ☒ No

Please explain: None of the defined terms used within the Reliability Standard need to be refined. However, the drafting team should review the standard and ensure that all NERC Glossary Terms that could be capitalized (e.g., Facility, Transmission) are appropriately capitalized.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered "No," please identify which elements require revision, and why:

   ☐ Yes
   ☒ No

   The FAC-001-1 VSLs and Measures are consistent with NERC and FERC guidelines, but if a drafting team revises the standard, the VSLs and Measures will need to be updated. A drafting team should also incorporate Time Horizons into the requirements. And while the Data Retention section of the standard is currently appropriate, the FYRT notes that the boilerplate language should be reviewed for continued accuracy at the time that the standard is revised.

   The FYRT also believes that the currently assigned VRFs are inconsistent with VRF guidelines and with other standards. Currently, all of the requirements are assigned a Medium VRF. The requirements in FAC-001-1 are administrative in nature and take place in the planning horizon – both factors that can lead to a Lower VRF assignment. Additionally, R3 of FAC-003-2, which requires documented maintenance strategies or procedures or processes or specifications and takes place in the planning horizon, is assigned a Lower VRF, and VRFs are to be consistent across standards. Thus, the FYRT believes that each requirement in FAC-001-1 should be reconsidered for a Lower VRF.

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered "Yes," please describe the changes needed to achieve formatting and language consistency:

   ☐ Yes
   ☒ No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered "Yes," please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

☐ Yes

☒ No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

☒ Yes
☐ No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No. Generator interconnection Facilities were already proposed for incorporation into FAC-001-1 by the Project 2010-07: Generator Requirements at the Transmission Interface drafting team.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- ☐ AFFIRM
- ☒ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*: As considered in more detail above, to eliminate requirements with no impact on the reliable operation of the Bulk Electric System, add clarity, remove redundancy, and bring compliance elements into conformance with NERC guidelines, the FYRT recommends revising FAC-001-1. The standard should also be transferred to the new Results-Based Standard template.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- ☐ AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*:

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "Acceptance Criteria of a Reliability Standard."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?

b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?

c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.[5] Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities ("entities") to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines "reliable operation" as: "… operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

[5] In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention
These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation
The Reliability Standard requirement requires responsible entities to develop a document (*e.g.,* plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting
The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates
The Reliability Standard requirement requires responsible entities to periodically update (*e.g.,* annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice
The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant
The Reliability Standard 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.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, 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 retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)
Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?
The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?
The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection ("CIP") requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?
The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?
The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In order words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?
The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

A. Introduction

1. **Title:** **Facility Connection Requirements**

2. **Number:** FAC-001-1

3. **Purpose:** To avoid adverse impacts on reliability, Transmission Owners and Generator Owners must establish Facility connection and performance requirements.

4. **Applicability:**

   4.1. Transmission Owner

   4.2. Applicable Generator Owner

   4.2.1 Generator Owner with an executed Agreement to evaluate 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.

5. **Effective Date:**

   5.1. In those jurisdictions where regulatory approval is required, all requirements applied to the Transmission Owner become effective upon regulatory approval. In those jurisdictions where no regulatory approval is required, all requirements applied to the Transmission Owner and Regional Entity become effective upon Board of Trustees' adoption.

   5.2. In those jurisdictions where regulatory approval is required, all requirements applied to the Generator Owner become effective on the first calendar day of the first calendar quarter one year after the date of the order approving the standard from applicable regulatory authorities. In those jurisdictions where no regulatory approval is required, all requirements applied to the Generator Owner become effective on the first calendar day of the first calendar quarter one year after Board of Trustees' adoption.

B. Requirements

R1. The Transmission Owner shall document, maintain, ~~and~~ publish, and update Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements. The Transmission Owner's Facility connection requirements shall address connection requirements for:

1.1. Generation Facilities,

1.2. Transmission Facilities, and

1.3. End-user Facilities

[VRF – ~~Medium~~Lower] [Time Horizon – Long-term Planning]

R2. Each applicable Generator Owner shall, within 45 days of having an executed Agreement to evaluate 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 (under FAC-002-1), document and publish its Facility connection requirements to

Comment [MCH1]: Are performance requirements really addressed in this standard? Should this reference be deleted?

ensure compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.

[VRF – ~~Medium~~Lower] [Time Horizon – Long-term Planning]

R3. Each Transmission Owner and each applicable Generator Owner (in accordance with Requirement R2) shall address the following items in its Facility connection requirements:

~~**3.1.** Provide a written summary of its plans to achieve the required system performance as described in Requirements R1 or R2 throughout the planning horizon:~~

~~**3.2.**~~ Procedures for coordinated joint studies of new Facilities and their impacts on the interconnected Transmission system~~s~~ and adjacent ~~t~~Transmission system.

3.1.

~~**3.3.**~~ Procedures for notification of new or modified Facilities to others (those responsible for the reliability of the interconnected Transmission system~~s~~ and adjacent ~~t~~Transmission system) as soon as feasible.

~~**3.3.1.** Voltage level and MW and MVAR capacity or demand at point of connection.~~

~~**3.3.2.** Breaker duty and surge protection.~~

~~**3.3.3.** System protection and coordination.~~

~~**3.3.4.** Metering and telecommunications.~~

~~3.3.5.~~3.2. ~~Grounding and safety issues.~~

~~**3.3.6.** Insulation and insulation coordination.~~

~~**3.3.7.** Voltage, Reactive Power, and power factor control.~~

~~**3.3.8.** Power quality impacts.~~

~~**3.3.9.** Equipment Ratings.~~

~~**3.3.10.** Synchronizing of Facilities.~~

~~**3.3.11.** Maintenance coordination.~~

~~**3.3.12.** Operational issues (abnormal frequency and voltages).~~

~~**3.3.13.** Inspection requirements for existing or new Facilities.~~

~~**3.3.14.** Communications and procedures during normal and emergency operating conditions.~~

[VRF – ~~Medium~~Lower] [Time Horizon – Long-term Planning]

~~**R4.** The Transmission Owner shall maintain and update its Facility connection requirements as required. The Transmission Owner shall make documentation of these requirements available to the users of the transmission system, the Regional Entity, and ERO on request (five business days).~~

Comment [MCH2]: Since we are proposing to delete the prescriptive sub-parts, would there be value in describing the general categories that could be considered? For instance: "shall address maintenance and operations requirements, along with the following items, in its Facility requirements…"

Comment [MCH3]: Joint studies with whom?

Comment [MCH4]: We proposed the deletion of the 's' but now with the addition of "adjacent Transmission system" the singular version might not make sense.

Comment [MCH5]: Should we specify "applicable adjacent Transmission systems"?

Comment [MCH6]: We proposed the deletion of the 's' but now with the addition of "adjacent Transmission system" the singular version might not make sense.

Comment [MCH7]: Should we specify "applicable adjacent Transmission systems"?

Formatted

~~*[VRF – Medium]*~~

~~B.~~C. Measures

M1. The Transmission Owner shall make available (to its Compliance Enforcement Authority) evidence that it met all the requirements stated in Requirement R1.

M2. Each Generator Owner that has an executed Agreement to evaluate 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 shall make available (to its Compliance Enforcement Authority) evidence that it met all requirements stated in Requirement R2.

M3. Each Transmission Owner and each applicable Generator Owner (in accordance with Requirement R2) shall make available (to its Compliance Enforcement Authority) evidence that it met all requirements stated in Requirement R3.

~~**M4.** The Transmission Owner shall make available (to its Compliance Enforcement Authority) evidence that it met all the requirements stated in Requirement R4.~~

~~C.~~D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

Compliance Monitor: Regional Entity

1.2. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

1.3. Data Retention

The Transmission Owner shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

- The Transmission Owner shall retain evidence of Requirement R1, Measure M1, Requirement R3, Measure M3, and Requirement R4, Measure M4 from its last audit.

The Generator Owner shall keep data or evidence to show compliance as identified below unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation:

- The Generator Owner shall retain evidence of Requirement R2, Measure M2, and Requirement R3, Measure M3 from its last audit.

The Compliance Enforcement Authority shall keep the last audit records and all requested and submitted subsequent audit records.

1.4. Additional Compliance Information

None.

2. Violation Severity Levels

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Not Applicable.	The Transmission Owner failed to do one of the following: Document or maintain or publish Facility connection requirements as specified in the Requirement OR Failed to include one (1) of the components as specified in R1.1, R1.2 or R1.3.	The Transmission Owner failed to do one of the following: Failed to include (2) of the components as specified in R1.1, R1.2 or R1.3 OR Failed to document or maintain or publish its Facility connection requirements as specified in the Requirement **and** failed to include one (1) of the components as specified in R1.1, R1.2 or R1.3.	The Transmission Owner did not develop Facility connection requirements.
R2	The Generator Owner failed to document and publish Facility connection requirements until more than 45 calendar days but less than or equal to 60 calendar days after having an Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to	The Generator Owner failed to document and publish Facility connection requirements until more than 60 calendar days but less than or equal to 70 calendar days after having an Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to	The Generator Owner failed to document and publish Facility connection requirements until more than 70 calendar days but less than or equal to 80 calendar days after having an Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to	The Generator Owner failed to document and publish Facility connection requirements until more than 80 days after having an Agreement to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used

	the interconnected Transmission systems.	the interconnected Transmission systems.	the interconnected Transmission systems.	to interconnect to the interconnected Transmission systems.
R3	The responsible entity's Facility connection requirements failed to address one of the parts listed in Requirement R3, parts 3.1.1 through 3.1.16.	The responsible entity's Facility connection requirements failed to address two of the parts listed in Requirement R3, parts 3.1.1 through 3.1.16.	The responsible entity's Facility connection requirements failed to address three of the parts listed in Requirement R3, parts 3.1.1 through 3.1.16.	The responsible entity's Facility connection requirements failed to address four or more of the parts listed in Requirement R3, parts 3.1.1 through 3.1.16.
~~R4~~	~~The responsible entity made the requirements available more than five business days but less than or equal to 10 business days after a request.~~	~~The responsible entity made the requirements available more than 10 business days but less than or equal to 20 business days after a request.~~	~~The responsible entity made the requirements available more than 20 business days less than or equal to 30 business days after a request.~~	~~The responsible entity made the requirements available more than 30 business days after a request.~~

~~D.~~E. Regional Differences

1. None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Added requirements for Generator Owner and brought overall standard format up to date.	Revision under Project 2010-07
1	February 9, 2012	Adopted by the Board of Trustees	
2			

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Five-Year Review Recommendation to Revise FAC-002-1: Coordination of Plans for New Facilities

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.[1] While FAC-002-1 became enforceable on October 1, 2011, it has not been substantively revised and thus is being reviewed as part of the overall FAC five-year review process.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **REVISING** FAC-002-1. Alongside this recommendation, the FYRT has posted a draft Standard Authorization Request (SAR) for information.

[1] The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-002-1
Team Members: 1. John Beck (Chair), Consolidated Edison Co. of New York 2. Michael Steckelberg (Vice Chair), Great River Energy 3. Brian Dale, Georgia Power Company 4. Ruth Kloecker, ITC Holdings 5. Stewart Rake, Luminant Generation Company 6. Ganesh Velummylum, Northern Indiana Public Service Company 7. Mallory Huggins (Lead Standards Developer), NERC 8. Sean Cavote (Supporting Standards Developer), NERC 9. Ed Dobrowolski (Supporting Standards Developer), NERC
Date Review Completed: 07/19/13

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

   ☒ Yes

   ☐ No

   There are two outstanding directives from FERC Order 693[2] that apply to FAC-002-0. The first directs NERC to consider incorporating a reference to TPL-004-0 in FAC-002-0. This directive is outdated. FERC has issued a Notice of Proposed Rulemaking proposing to approve TPL-001-4, which will combine the four TPL standards, so the reference in FAC-002 will need to be changed to reference TPL-001-4.

   The second outstanding directive related to FAC-002-0 asked NERC to consider the comments of various entities asking for clarification of R1.

   - APPA requested that the Reliability Standard be clarified to state that the required assessment must be performed only by the Transmission Planner and the Planning Authority. Related, TAPS expressed concern that Load-Serving Entities are not equipped to perform assessments. California Cogeneration expressed a similar concern about Generator Owners' ability to perform an assessment.
     - The FYRT recommends addressing these concerns by splitting R1 into three requirements that better clarify the responsibilities of all entities involved. As envisioned by the FYRT, a new R1 would focus exclusively on the Transmission Planner and Planning Authority's responsibility for conducting assessments, and a new R2 and R3 would separate out the requirement for Generator Owners, Transmission Owners, Distribution Providers, and Load-Serving Entities to simply coordinate and cooperate on those assessments.
   - Xcel requested that the Commission clarify that only one required assessment needs to be done when new facilities are added, and that all the listed entities should participate in that single assessment.
     - The FYRT agrees that it is possible that only one assessment may be necessary, and in that case all entities could simply participate and sign on to that assessment, but in other cases, multiple assessments might be conducted and later coordinated.
   - FirstEnergy requested that NERC clarify what is considered a new facility and asks if, for example, up-rates should be included as new facilities.

[2] FERC Order No. 693, which approved 83 Reliability Standards as mandatory and effective, is available here: http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/ORDER%20693.pdf.

    - The FYRT believes the determination of whether an up-rate needs to be assessed the same way as a new facility is up to the entity that's conducting the study, and that such decisions will vary by region.
- Six Cities requested that this Reliability Standard clarify that all applicable entities must make available data necessary for all other responsible entities to perform the required assessment.
    - The FYRT believes that the requirement to coordinate and cooperate requires the sharing of all data necessary for conducting an assessment.
- Six Cities also suggested that the transmission operator be added as an entity to which this Reliability Standard is applicable, at least from the perspective that it make necessary data available to all other entities responsible for assessment.
    - The FYRT believes that data from the Transmission Owner would account for the necessary data from the transmission side. It would be the responsibility of the Transmission Planner or Planning Authority to include any relevant operations data.
- FirstEnergy stated that both MISO and PJM already have Large Generator Interconnection Procedures (LGIP) in place that provide a formal process that meets the requirements listed under R1, and asks that the Commission state that complying with the interconnection agreement and/or OATT satisfies this requirement.
    - The FYRT points out that regardless of what's 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.

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

    ☐ Yes

    ☒ No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

    ☐ Yes

    ☒ No

Please explain: FAC-002-1 is not one of the most frequently violated Reliability Standards, but all of the requirements in FAC-002-1 do appear on the 2013 Actively Monitored List.[3] R1 and R1.3 are Tier 1; R1.1, R1.2, R1.4, and R1.5 are Tier 2.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

   ☒ Yes

   ☐ No

[3] The 2013 Actively Monitored List can be found here: http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Enerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

Questions for SME Review Team

1. **Paragraph 81**: Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

   ☒ Yes

   ☐ No

   Please summarize your application of Paragraph 81 Criteria, if any: R2 has already been proposed for retirement by the Paragraph 81 review team. The FYRT recommends that R1 be modified but retained in the interest of reliability. One subpart, R1.2, should be considered for possible P81 retirement. R1.2 requires the ensurance of compliance with "NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements of the impacted systems."

   A similar reference is contained in FAC-001-1 R1 and R2, which require compliance with "NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements." While the entities to which the FAC-001-1 and FAC-002-1 requirements are assigned differ, the concepts may be redundant (Criterion B7) and possibly not necessary for reliability, as the requirement to comply with NERC Reliability Standards, applicable Regional criteria, etc. is built into the ERO framework established in Order 672.[4] A drafting team may determine that the language is not necessary in either standard, but if this language is deemed necessary for reliability, it should be retained only in FAC-002-1, R1.2.

   The FYRT also discussed whether R1, which requires that assessments be conducted, is redundant with TPL-001-4, R2, which requires Transmission Planners and Planning Coordinators to prepare Planning Assessments for their portions of the BES. The team 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 TPL, but until then, the potential impact is evaluated under FAC-002.

[4] *Order* 672 – *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards* is posted here: http://www.nerc.com/FilingsOrders/us/FERCOrdersRules/final_rule_reliability_Order_672.pdf.

During Phase 1 of the Paragraph 81 process, the review team received one comment expressing concern about R1, stating that the requirement assigns responsibility to the wrong functional entity. The FYRT believes this concern could be addressed by splitting R1 into three requirements that better clarify the responsibilities of all entities involved, as considered below.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

    a. Is this a Version 0 Reliability Standard?
    b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
    c. Are the requirements consistent with the purpose of the Reliability Standard?

    ☒ Yes

    ☐ No

    Please summarize your assessment: For clarity and consistency with the proposed TPL-001-4 and the Functional Model, the FYRT recommends changing the applicable functional entity of "Planning Authority" to "Planning Coordinator."

    FAC-002-1, R1 is necessary for reliability, but the FYRT believes that it is unclear as written, especially in the manner in which it assigns responsibility by functional entity. The FYRT recommends splitting R1 into different requirements to add clarity and better distinguish among the required actions. Additionally, the team recommends revising some of the original R1 subparts, because they currently read like Measures rather than requirements. Currently, R1 reads as follows:

    R1. The Generator Owner, Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate generation facilities, transmission facilities, and electricity end-user facilities shall each coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority. The assessment shall include:

    1.1. Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.

    1.2. Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.

1.3. Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.

1.4. Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0.

1.5. Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.

The FYRT recommends splitting R1 into the following three requirements: one requiring the Transmission Planner and Planning Coordinator to conduct assessments (new R1), one requiring Generator Owners to coordinate and cooperate with the Transmission Planner and Planning Coordinator as those assessments are conducted (new R2), and one requiring Transmission Owners, Distribution Providers, and Load-Serving Entities to coordinate and cooperate with the Transmission Planner and Planning Coordinator as those assessments are conducted (new R3). The FYRT recommends ordering the requirements so that the new R1, which focuses on what needs to be included in an assessment, comes before R2 and R3, which focus on the entities that need to coordinate and cooperate with the entities conducting the assessments.

The FYRT also recommends moving the current R1.1-1.5 under the new R1, with deletion of most of R1.3 (and possibly R1.2, as discussed above under the section on Paragraph 81). R1.3 reads like more of a Measure for the coordination and cooperation aspect of the standard, but the last sentence of original 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 to ensure that some reference to coordinating with third parties and end users is included. Similarly, the FYRT does not believe it is clear whether "the interconnected transmission Systems" in R1.1 include adjacent Transmission system(s). A drafting team should consider whether adjacent Transmission systems need to be explicitly included in the requirement language.

The FYRT also recommends the modification of the current R1.4 and R1.5 to make them read more like subparts of a requirement and less like Measures. For instance, the team recommends that phrases like "evidence that…" be deleted.

Finally, both the title of the standard and the purpose statement should be reviewed to ensure that they accurately reflect the requirements in FAC-002-1.

3. **Definitions**: Do any of the defined terms used within the Reliability Standard need to be refined?

☐ Yes

☒ No

Please explain: None of the defined terms used within the Reliability Standard need to be refined. However, the drafting team should review the standard and ensure that all NERC Glossary Terms that could be capitalized (e.g., Facility, Transmission) are appropriately capitalized.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered "No," please identify which elements require revision, and why:

   ☒ Yes
   ☐ No

   FAC-002-1 VSLs, VRFs, and Measures are consistent with NERC and FERC guidelines, but if a drafting team revises the standard, the VSLs, VRFs, and Measures will all need to be revised and incorporated into the body of the standard. Time Horizons will also need to be incorporated into the requirements. The Data Retention section of the standard should be updated to ensure that it is consistent with current NERC guidance on compliance language within a standard.

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered "Yes," please describe the changes needed to achieve formatting and language consistency:

   ☐ Yes
   ☒ No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered "Yes," please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

   ☐ Yes
   ☒ No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

   ☒ Yes
   ☐ No

   Guiding Questions:

   If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No.

   If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- ☐ AFFIRM
- ☒ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*: As considered in more detail above, to eliminate redundancy, clarify the responsibilities of all entities involved in the standard, and update references to TPL standards, the FYRT recommends revising FAC-002-1. The standard should also be transferred to the new Results-Based Standard template.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- ☐ AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*:

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "Acceptance Criteria of a Reliability Standard."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?

b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?

c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.[5] Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities ("entities") to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines "reliable operation" as: "… operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

[5] In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention
These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation
The Reliability Standard requirement requires responsible entities to develop a document (*e.g.,* plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting
The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates
The Reliability Standard requirement requires responsible entities to periodically update (*e.g.,* annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice
The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant
The Reliability Standard 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.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, 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 retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)
Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?
The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?
The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection ("CIP") requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?
The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?
The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In order words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?
The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

Standard FAC-002-1 — Coordination of Plans for New Facilities

A. **Introduction**

1. **Title:** Coordination of Plans For New Generation, Transmission, and End-User Facilities

2. **Number:** FAC-002-1

3. **Purpose:** To avoid adverse impacts on reliability, Generator Owners and Transmission Owners and electricity end-users must meet facility connection and performance requirements.

4. **Applicability:**

   4.1. Generator Owner

   4.2. Transmission Owner

   4.3. Distribution Provider

   4.4. Load-Serving Entity

   4.5. Transmission Planner

   4.6. Planning Authority

5. **(Proposed) Effective Date:** The first day of the first calendar quarter six months after applicable regulatory approval; or in those jurisdictions where no regulatory approval is required, the first day of the first calendar quarter six months after Board of Trustees' adoption.

B. **Requirements**

R1. The Transmission Planner and Planning Authority shall conduct assessments on the reliability impact of integrating new generation, transmission, or electricity end-user facilities. The assessments shall include: *[VRF - Medium] [Time Horizon – Long-term Planning]*

1.1. Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems, including adjacent transmission systems. While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.

1.2. Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements of the impacted systems.

1.3. Steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0.

1.4. Study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.

R2. ~~The~~ The Generator Owner~~, Transmission Owner, Distribution Provider, and Load-Serving Entity~~ seeking to integrate generation facilities~~, transmission facilities, and electricity end-user facilities~~ shall ~~each~~ coordinate and cooperate on assessments~~its assessments~~ with its Transmission Planner and Planning Authority.

[VRF – Medium] [Time Horizon – Long-term Planning]

R3. The Transmission Owner, Distribution Provider, and Load-Serving Entity seeking to integrate transmission facilities or electricity end-user facilities shall each coordinate and cooperate on assessments with its Transmission Planner and Planning Authority.

Comment [MCH1]: Should we specify "applicable adjacent Transmission systems"?

Comment [MCH2]: Is this redundant with FAC-001, R1?

Comment [MCH3]: Modify to reference new TPL standard -- TPL-001-4? Or modify to reference "TPL standards" so that an update isn't required?

Comment [MCH4]: Is this redundant with R3?

[VRF – Medium] [Time Horizon – Long-term Planning]

~~The assessment shall include:~~

~~Evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems.~~

~~Ensurance of compliance with NERC Reliability Standards and applicable Regional, subregional, Power Pool, and individual system planning criteria and facility connection requirements.~~

~~Evidence that the parties involved in the assessment have coordinated and cooperated on the assessment of the reliability impacts of new facilities on the interconnected transmission systems. While these studies may be performed independently, the results shall be jointly evaluated and coordinated by the entities involved.~~

~~Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0.~~

~~Documentation that the assessment included study assumptions, system performance, alternatives considered, and jointly coordinated recommendations.~~

~~R1.~~R4. ~~of the impacted systems.~~ The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each retain its documentation (of its evaluation of the reliability impact of the new facilities and their connections on the interconnected transmission systems) for three years and shall provide the documentation to the Regional Reliability Organization(s) and NERC on request (within 30 calendar days). (Retirement approved by NERC BOT pending applicable regulatory approval.)

C. Measures

M1. The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider's documentation of its assessment of the reliability impacts of new facilities shall address all items in Reliability Standard FAC-002-0_R1.

M2. The Planning Authority, Transmission Planner, Generator Owner, Transmission Owner, Load-Serving Entity, and Distribution Provider shall each have evidence of its assessment of the reliability impacts of new facilities and their connections on the interconnected transmission systems is retained and provided to other entities in accordance with Reliability Standard FAC-002-0_R2. (Retirement approved by NERC BOT pending applicable regulatory approval.)

~~**M2.**~~

~~D.~~

~~E.~~D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

Regional Entity.

1.2. Compliance Monitoring Period and Reset Timeframe

Not applicable.

1.3. Compliance Monitoring and Enforcement Processes:

Compliance Audits

Self-Certifications
Spot Checking
Compliance Violation Investigations
Self-Reporting

Complaints

1.4. Data Retention

Evidence of the assessment of the reliability impacts of new facilities and their connections on the interconnected transmission systems: Three years.

1.5. Additional Compliance Information

None

2. Violation Severity Levels (no changes)

~~F.~~E. Regional Differences

1. None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	January 13, 2006	Removed duplication of "Regional Reliability Organizations(s).	Errata
1	August 5, 2010	Modified to address Order No. 693 Directives contained in paragraph 693. Adopted by the NERC Board of Trustees.	Revised.
1	February 7, 2013	R2 and associated elements approved by NERC Board of Trustees for retirement as part of the Paragraph 81 project (Project 2013-02) pending applicable regulatory approval.	
2			

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This draft SAR is being posted to provide further information on the scope of revisions proposed for FAC-001-1 and FAC-002-1 by the FAC Five-Year Review Team. If the final recommendations are accepted by the Standards Committee, revisions will be made through the formal standard development process.

Standards Authorization Request Form

When completed, please email this form to:
sarcomm@nerc.com

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

Request to propose a new or a revision to a Reliability Standard			
Title of Proposed Reliability Standard:	Connecting New Facilities to the Bulk Electric System (FAC-001-1 and FAC-002-1)		
Date Submitted:	July 19, 2013		
SAR Requester Information			
Name:	The FAC Five-Year Review Team (Roster)		
Organization:	N/A		
Telephone:	N/A	E-mail:	N/A
SAR Type (Check as many as applicable)			
☐ New Reliability Standard ☒ Revision to existing Reliability Standards		☐ Withdrawal of existing Reliability Standard ☐ Urgent Action	

SAR Information
Industry Need (What is the industry problem this request is trying to solve?):
The Standards Committee assigned six subject matter experts to review the FAC family of Reliability Standards as part of NERC's obligation to conduct periodic reviews of its Reliability Standards. The Five-Year Review Team determined that FAC-001-1 and FAC-002-1 remain necessary for reliability to ensure that entities establish Facility connection requirements and then conduct assessments using those requirements before integrating new Facilities. Both Reliability Standards, however, require revision to refocus industry effort on those tasks that have a true impact on reliability.

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

SAR Information
It may be determined, during the execution of this project, that FAC-001-1 and FAC-002-1 should be combined into one Reliability Standard.
Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR. Also provide a justification for the development or revision of the Reliability Standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the Reliability Standard action.)
Per the *FAC Five-Year Review Team Recommendation to Revise FAC-001-1*, the drafting team should consider: • Revising the title and purpose of the Reliability Standard to reflect the language in the requirements. • Retiring the following reference in R1: "…compliance with NERC Reliability Standards and applicable Regional Entity, subregional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements" because it is redundant with FAC-002-1, R1.2 and built into the ERO framework established in Order 672. • Retiring all of the subparts in R3, except for R3.1.1 and R3.1.2, and moving them to a guidance document. • Modifying R3 to ensure that the impact on third parties is appropriately addressed. • Retiring R4. • Modifying the VRFs for conformance with NERC's VRF guidelines. • Adding Time Horizons to each requirement. Per the *FAC Five-Year Review Team Recommendation to Revise FAC-002-1*, the drafting team should consider: • Revising the title and purpose of the Reliability Standard to reflect the language in the requirements. • Changing "Planning Authority" in the applicability section to "Planning Coordinator" to reflect the Functional Model, as well as the recently revised TPL-001-4. • 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

SAR Information
the Generator Owners' responsibility for coordinating and cooperating with the Transmission Planner and Planning Coordinator as those assessments are conducted. A third requirement should describe the Transmission Owners', Distribution Providers', and Load-Serving Entities' responsibility for coordinating and cooperating with the Transmission Planner and Planning Coordinator as those assessments are conducted. • Revising the subparts of R1 to remove elements that are more appropriate for Measures. • Modifying R1.1 to ensure that the impact on third parties is appropriately addressed. • Modifying R1.4 to update the reference to the TPL Reliability Standards to reflect the changes in proposed TPL-001-4. • Adding Time Horizons to each requirement.

Reliability Functions	
The Reliability Standards will Apply to the Following Functions (Check each one that applies.)	
☐ Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
☐ Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and supports Interconnection frequency in real time.
☐ Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
☒ Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
☐ Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
☒ Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
☐ Transmission Service	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma

Reliability Functions		
	Provider	tariff).
☒	Transmission Owner	Owns and maintains transmission facilities.
☐	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
☒	Distribution Provider	Delivers electrical energy to the End-use customer.
☒	Generator Owner	Owns and maintains generation facilities.
☐	Generator Operator	Operates generation unit(s) to provide real and reactive power.
☐	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
☐	Market Operator	Interface point for reliability functions with commercial functions.
☒	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles	
Applicable Reliability Principles (Check all that apply).	
☒	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Reliability Standards.
☐	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
☒	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
☐	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
☐	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
☐	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
☐	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.

Reliability and Market Interface Principles	
☐ 8. Bulk power systems shall be protected from malicious physical or cyber attacks.	
Does the proposed Reliability Standard comply with all of the following Market Interface Principles?	Enter (yes/no)
1. A Reliability Standard shall not give any market participant an unfair competitive advantage.	Yes
2. A Reliability Standard shall neither mandate nor prohibit any specific market structure.	Yes
3. A Reliability Standard shall not preclude market solutions to achieving compliance with that Reliability Standard.	Yes
4. A Reliability Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with Reliability Standards.	Yes

Related Reliability Standards	
Reliability Standard No.	Explanation
TPL Family	FAC-002-1, R1.4 references TPL-001-0, TPL-002-0, and TPL-003-0. R1.4 requires that assessments include: "Evidence that the assessment included steady-state, short-circuit, and dynamics studies as necessary to evaluate system performance under both normal and contingency conditions in accordance with Reliability Standards TPL-001-0, TPL-002-0, and TPL-003-0." These Reliability Standards are proposed to be revised and combined in TPL-001-4, which has not yet been approved by FERC. The drafting team should ensure that this reference is updated to either refer to TPL-001-4 (if it is approved) or TPL Reliability Standards more generically.

Related SARs – N/A	
SAR ID	Explanation

Regional Variances – N/A	
Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
RFC	
SERC	
SPP	
WECC	

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Five-Year Review Recommendation to Affirm FAC-003-3: Transmission Vegetation Management

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.[1] While FAC-003 is not yet due for a review, as the latest revised version is not yet enforceable, it is being reviewed as part of a comprehensive review project for all FAC standards.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. Five-Year Review Teams (FYRTs) use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that a Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **AFFIRMING** FAC-003-3.

Note: FAC-003-2 is the latest FERC-approved version of FAC-003. It will become enforceable on July 1, 2014. On February 9, 2012, the NERC Board of Trustees approved a surgical change to add certain kinds of Generator Owners to the Applicability section of FAC-003-2, which would create FAC-003-3. While FAC-003-3 has not been approved by FERC, a Notice of Proposed Rulemaking was issued on April 18, 2013 proposing to approve it. Because it appears likely that FAC-003-3 will be approved, and because the changes in that version do not materially change the existing requirements in FAC-003-2, the FYRT elected to review FAC-003-3. Throughout this document, the team refers to FAC-003-3, unless it is referencing compliance or enforcement, in which case FAC-003-1 (the current mandatory and enforceable version of the standard) is appropriately referenced.

[1] The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-003-3
Team Members: 1. John Beck (Chair), Consolidated Edison Co. of New York 2. Michael Steckelberg (Vice Chair), Great River Energy 3. Brian Dale, Georgia Power Company 4. Ruth Kloecker, ITC Holdings 5. Stewart Rake, Luminant Generation Company 6. Ganesh Velummylum, Northern Indiana Public Service Company 7. Mallory Huggins (Lead Standards Developer), NERC 8. Sean Cavote (Supporting Standards Developer), NERC 9. Ed Dobrowolski (Supporting Standards Developer), NERC
Date Review Completed: 07/19/13

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

   ☐ Yes
   ☒ No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

   ☐ Yes
   ☒ No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

   ☐ Yes
   ☒ No

   Please explain: FAC-003-1 was not among the 20 most violated standards in 2012.[2]

   All the requirements in FAC-003-1 appear on the 2013 Actively Monitored List.[3] R1 and its subparts and R2 are Tier 1; R3 and its subparts and R4 are Tier 2.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with

[2] The 2012 Compliance Monitoring and Evaluation Annual Report can be found here: http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.
[3] The 2013 Actively Monitored List can be found here: http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Enerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

☐ Yes

☒ No

Questions for SME Review Team

1. **Paragraph 81**: Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

   ☐ Yes
   ☒ No

   Please summarize your application of Paragraph 81 Criteria, if any: Not applicable.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

   a. Is this a Version 0 Reliability Standard?
   b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
   c. Are the requirements consistent with the purpose of the Reliability Standard?

   ☐ Yes
   ☒ No

   Please summarize your assessment: The FYRT supports the extensive background, guidelines, and technical basis developed by the Project 2007-07: Transmission Vegetation Management drafting team. As the first team to develop a Results-Based Standard, the team developed clear, enforceable requirements that the FYRT supports and for which no issues have been identified.

3. **Definitions**: Do any of the defined terms used within the Reliability Standard need to be refined?

   ☐ Yes
   ☒ No

   Please explain: None of the defined terms used within the Reliability Standard need to be refined.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative

and FERC and NERC guidelines? If you answered "No," please identify which elements require revision, and why:

☒ Yes
☐ No

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered "Yes," please describe the changes needed to achieve formatting and language consistency:

☐ Yes
☒ No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered "Yes," please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

☐ Yes
☒ No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

☒ Yes
☐ No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No. The Project 2010-07: Generator Requirements at the Transmission Interface team already proposed a revision to FAC-003 to appropriately account for certain kinds of GOs that own certain kinds of generator interconnection Facilities.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- ☒ AFFIRM
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*: There have been no changes since FERC approved FAC-003-2 on March 21, 2013 that affect the technically justified, clear requirements that were developed by the Project 2007-07 drafting team and thoroughly vetted by industry stakeholders. Similarly, the FYRT continues to support the Project 2010-07: Generator Requirements at the Transmission Interface drafting team's specific addition of certain Generator Owners in FAC-003-3. The FYRT recommends affirming FAC-003-3, if FERC approves it, and if not, the FYRT recommends affirming FAC-003-2.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- ☐ AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*:

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "Acceptance Criteria of a Reliability Standard."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?

b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?

c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.[4] Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities ("entities") to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines "reliable operation" as: "… operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

[4] In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention
These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation
The Reliability Standard requirement requires responsible entities to develop a document (*e.g.,* plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting
The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates
The Reliability Standard requirement requires responsible entities to periodically update (*e.g.,* annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice
The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant
The Reliability Standard 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.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, 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 retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)
Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?
The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?
The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection ("CIP") requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?
The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?
The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In order words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?
The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Five-Year Review Recommendation to Affirm FAC-008-3: Facility Ratings

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.[1] While FAC-008-3 is not yet due for a review, as it only recently became enforceable on January 1, 2013, it is being reviewed as part of a comprehensive review project for all FAC standards.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. Five-Year Review Teams (FYRTs) use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that a Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **AFFIRMING** FAC-008-3, with some recommendations for additional clarity in guidance documents that support the standard.

[1] The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-008-3
Team Members: 1. John Beck (Chair), Consolidated Edison Co. of New York 2. Michael Steckelberg (Vice Chair), Great River Energy 3. Brian Dale, Georgia Power Company 4. Ruth Kloecker, ITC Holdings 5. Stewart Rake, Luminant Generation Company 6. Ganesh Velummylum, Northern Indiana Public Service Company 7. Mallory Huggins (Lead Standards Developer), NERC 8. Sean Cavote (Supporting Standards Developer), NERC 9. Ed Dobrowolski (Supporting Standards Developer), NERC
Date Review Completed: 07/19/13

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

   ☐ Yes

   ☒ No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

   ☒ Yes

   ☐ No

   While there are no interpretations or CANs associated with this version of FAC-008, there were two CANs associated with FAC-008-1 and FAC-009-1. Those standards were combined in FAC-008-3.

   CAN-0009[2] is associated with FAC-008-1 and FAC-009-1. It provides instruction for assessing compliance with FAC-008-1 R1 and FAC-009-1 R1 when an entity's constructed Facilities do not match its design specification.

   CAN-0018[3] is associated with FAC-008-1. In CAN-0018, NERC compliance states that "terminal equipment" (referenced in R2.4.1 and R3.4.1) refers to wave traps, current transformers, disconnect switches, breakers, primary fuses, and any piece of series-connected equipment that comprises a Facility and that could have the most limited applicable Equipment Rating. FAC-008-3 contains similar references to "terminal equipment."

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

[2] CAN-0009 can be found here: http://www.nerc.com/pa/comp/Resources/Compliance%20Application%20Notices%20DL/CAN-0009%20FAC-008%20and%20FAC-009%20Facility%20Ratings%20and%20Design%20Specifications%20(Revised).pdf.

[3] CAN-0018 can be found here: http://www.nerc.com/pa/comp/Resources/Compliance%20Application%20Notices%20DL/CAN-0018%20FAC-008%20R1.2.1%20Terminal%20Equipment%20(Revised).pdf.

☒ Yes

☐ No

Please explain: FAC-009-1 was the 9th most violated standard in 2012, and FAC-008-1 was the 13th most violated standard in 2012.[4] Because of this, a Compliance Analysis Report[5] was developed in 2010 to "provide information on compliance, including reasons for violations and identification of process enhancements and lessons learned to assist Registered Entities in improving compliance and thus enhancing reliability." These statistics and the Compliance Analysis Report, however, do not relate to FAC-008-3, which recently became enforceable on January 1, 2013.

Some of the requirements in FAC-008-3 appear on the 2013 Actively Monitored List.[6] R6 and R7 are Tier 1; R1, R2, and R3 and their subparts are Tier 2; and R8 is Tier 3. R4 and R5 are not on the list.

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

   ☐ Yes
   ☒ No

   While FAC-008-3 is not in the Results-Based Standard template, its requirements are clear, measurable, and enforceable and fulfill the purpose of the Results-Based Standards process by describing a function that is performance-, risk-, or competency-based. The requirements also support one or more of NERC's reliability principles.

   R1, R2, and R3 are competency-based requirements; they define a set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. These requirements ensure that the applicable entities can demonstrate that they developed Facility Ratings that have accounted for a variety of reliability functions.

[4] The 2012 Compliance Monitoring and Evaluation Annual Report can be found here: http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.
[5] The Compliance Analysis Report for FAC-008-1 and FAC-009-1 can be found here: http://www.nerc.com/pa/comp/Compliance%20Analysis%20Reports%20DL/1FAC-008-009%20Analysis%20Combined%20FINAL%20POSTED.pdf.
[6] The 2013 Actively Monitored List can be found here: http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Enerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

R4 and R5 have been approved for retirement by NERC's Board of Trustees.

R6 is a performance-based requirement; it describes an action that must be performed. It ensures that the applicable entities actually apply the Facility Ratings for which they developed a methodology or documentation in R1, R2, and R3.

R7 and R8 are performance-based requirements; they describe actions that must be performed. They ensure that the applicable entities provide their Facility Ratings to those other entities that may be affected by the Facility Ratings, so that the associated entities can continue to perform their reliability functions.

Collectively, these requirements support reliability principle 1 ("Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards") and reliability principle 3 ("Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably").

It is not essential that the standard be converted into a new template; the requirements already fulfill the Results-Based Standard guidelines.

Questions for SME Review Team

1. **Paragraph 81**: Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

   ☐ Yes
   ☒ No

   Please summarize your application of Paragraph 81 Criteria, if any: Not applicable.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

   a. Is this a Version 0 Reliability Standard?
   b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
   c. Are the requirements consistent with the purpose of the Reliability Standard?

   ☐ Yes
   ☒ No

   Please summarize your assessment: This is not a Version 0 Reliability Standard and the requirements are consistent with the purpose of the Reliability Standard.

   The FYRT has identified two opportunities to clarify ambiguous language in FAC-008-3, but the team does not believe that the standard needs to be revised in order to clarify that language.

   The first opportunity for clarification is with the undefined term “terminal equipment.” CAN-0018, originally issued on June 27, 2011, clarifies that “terminal equipment” refers to wave traps, current transformers, disconnect switches, breakers, primary fuses, and any piece of series-connected equipment that comprises a Facility and that could have the most limited applicable Equipment Rating. NERC plans to retire all CANs by the end of the year, and the FYRT believes it is important to memorialize this explanation in writing elsewhere. NERC standards staff and compliance staff discussed this concern and will ensure that the clarification is incorporated into the revised FAC-008-3 RSAW and shared with the FYRT for its review.

The FYRT notes that CAN-0009, originally issued on January 7, 2011, applied to FAC-008-1 and FAC-009-1. That CAN provides instruction for assessing compliance on the previously enforceable FAC standards, and the FYRT does not believe it is within its scope, as a standards-focused team, to determine the best way to offer that compliance guidance going forward.

The second opportunity to clarify ambiguous language relates to the reference to Facility Ratings "provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating" in R3. R3.1 requires Transmission Owners to have a documented methodology used to establish Facility Ratings that is consistent with one of three methods. One of those methods is obtaining ratings from the equipment manufacturer, but the other methods do not require knowledge of the equipment manufacturer rating and instead allow ratings to be developed based on "one or more industry standards developed through an open process such as Institute of Electrical and Electronics Engineers (IEEE) or International Council on Large Electric Systems (CIGRE)" or "a practice that has been verified by testing, performance history or engineering analysis." R3.2 requires that "each of the following" be considered: "Equipment Rating standard(s) used in development of this methodology," "Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications," "Ambient conditions (for particular or average conditions or as they vary in real-time)," and "Operating limitations."

The FYRT believes it is possible to apply R3.2 in a way that requires entities to have ratings provided by equipment manufacturers, even in cases where the equipment is decades old and does not have nameplate ratings, nor does the manufacturer still exist. This interpretation could occur, in part, because the main requirement says that each Transmission Owner must have a documented methodology for determining Facility Ratings "that contains all of the following." It is possible that "all of the following" could be construed to refer to every subpart of the requirement, despite the qualifications in R3.1 ("…at least one of the following") and R3.2 ("…how each of the following were considered"). This concern was also noted in the development of FAC-008-2. At that time, the Project 2009-06 drafting team dismissed the concern because the drafting team found the language to be clear, as did most stakeholders.[7]

The FYRT believes there could be value in clarifying the application of FAC-008-3, Requirement R3. Thus, the FYRT recommended that NERC compliance staff confirm, in writing, that R3 should not be construed to require entities to have Facility Ratings from equipment manufacturers in cases where those ratings are not available. NERC standards staff and compliance staff discussed this concern and will ensure that the clarification is incorporated into the revised FAC-008-3 RSAW and shared with the FYRT for its review.

[7] See P. 9 in the Project 2009-06 comment report from March 4, 2010: http://www.nerc.com/pa/Stand/Project%20200906%20Facility%20Ratings%20DL/Comment_Report_In-ballot_2009-06_Facility_Ratings_20100304.pdf.

3. **Definitions**: Do any of the defined terms used within the Reliability Standard need to be refined?

   ☐ Yes

   ☒ No

   Please explain: None of the defined terms used within the Reliability Standard need to be refined, though, as the team notes above, the undefined term "terminal equipment" should be better explained.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered "No," please identify which elements require revision, and why:

   ☒ Yes

   ☐ No

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered "Yes," please describe the changes needed to achieve formatting and language consistency:

   ☐ Yes

   ☒ No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered "Yes," please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

   ☐ Yes

   ☒ No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

   ☒ Yes

☐ No

Guiding Questions:

If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) No.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) Not applicable.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- ☒ AFFIRM
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*: The requirements in FAC-008-3 are generally clear, measurable, and enforceable and thus, the FYRT recommends affirming the standard with no standard revisions. The FYRT has worked with NERC staff to ensure that the undefined term "terminal equipment" in R2.4.1 and R3.4.1 and the references to Facility Ratings obtained from the equipment manufacturer in R3 are clarified in the updated FAC-008-3 RSAW.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- ☐ AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*:

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "Acceptance Criteria of a Reliability Standard."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?

b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?

c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.[8] Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities ("entities") to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines "reliable operation" as: "… operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

[8] In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention
These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

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B3. Documentation
The Reliability Standard requirement requires responsible entities to develop a document (*e.g.,* plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting
The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates
The Reliability Standard requirement requires responsible entities to periodically update (*e.g.,* annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice
The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant
The Reliability Standard 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.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, 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 retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)
Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?
The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?
The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection ("CIP") requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?
The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?
The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In order words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?
The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

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Five-Year Review Recommendation to Affirm FAC-013-2: Assessment of Transfer Capability for the Near-term Transmission Planning Horizon

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.[1] While FAC-013-2 is not yet due for a review, as it only recently became enforceable on April 1, 2013, it is being reviewed as part of a comprehensive review project for all FAC standards.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **AFFIRMING** FAC-013-2.

[1] The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standard: FAC-013-2
Team Members: 1. John Beck (Chair), Consolidated Edison Co. of New York 2. Michael Steckelberg (Vice Chair), Great River Energy 3. Brian Dale, Georgia Power Company 4. Ruth Kloecker, ITC Holdings 5. Stewart Rake, Luminant Generation Company 6. Ganesh Velummylum, Northern Indiana Public Service Company 7. Mallory Huggins (Lead Standards Developer), NERC 8. Sean Cavote (Supporting Standards Developer), NERC 9. Ed Dobrowolski (Supporting Standards Developer), NERC
Date Review Completed: 07/19/13

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standard?

   ☐ Yes

   ☒ No

2. Have stakeholders requested clarity on the Reliability Standard in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standard.)

   ☐ Yes

   ☒ No

3. Is the Reliability Standard one of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

   ☐ Yes

   ☒ No

   Please explain: FAC-013-1 was not among the most violated standards in 2012.[2] None of the requirements in FAC-013-1 or FAC-013-2 appear on the 2013 Actively Monitored List.[3]

4. Does the Reliability Standard need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

[2] The 2012 Compliance Monitoring and Evaluation Annual Report can be found here: http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

[3] The 2013 Actively Monitored List can be found here: http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Enerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

☐ Yes
☒ No

While FAC-013-2 is not in the Results-Based Standard template, its requirements are clear, measurable, and enforceable and fulfill the purpose of the Results-Based Standards process by describing a function that is performance-, risk-, or competency-based. The requirements also support one or more of NERC's reliability principles.

R1 is a competency-based requirement; it defines a set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. It requires that Planning Coordinators document their methodology for conducting an annual assessment of Transfer Capability in the Near-Term Transmission Planning Horizon and that the methodology incorporates a variety of reliability-related elements.

Although R2 is not a competency-, risk-, or performance-based requirement, the FYRT recommends retaining it since it supports R5. Receiving entities cannot understand the assessments they receive in R5 and R6 if they have not previously received the methodology for conducting those assessments.

R3 has been approved for retirement by NERC's Board of Trustees.

R4 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators actually conduct the simulations and assessment for which a methodology was developed under R1.

R5 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators make assessment results available to those entities affected by the assessment.

R6 is a performance-based requirement; it describes the performance of a particular action. It requires that Planning Coordinators provide, to affected entities that request it, the data to support their assessments.

Collectively, these requirements support reliability principle 1 ("Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards") and reliability principle 3 ("Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably").

It is not essential that FAC-013-2 be converted into a new template, since the requirements already fulfill the Results-Based Standards guidelines.

Questions for SME Review Team

1. **Paragraph 81**: Does one or more of the requirements in the Reliability Standard meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

   ☐ Yes
   ☒ No

   Please summarize your application of Paragraph 81 Criteria, if any: During Phase 1 of the Paragraph 81 process, the review team received some comments suggesting that parts of R5 and R6 be retired because they are reporting requirements. Reporting requirements can be retired under P81 criteria only if they have little impact on reliability. The FYRT determined that R5 and R6 are necessary because Planning Coordinators and Transmission Planners need to know the results of Transfer Capability assessments that could affect them or impact reliability, and should be able to request data to support those assessments.

2. **Clarity:** If the Reliability Standard has an Interpretation, CAN, or issue associated with it, or is frequently violated because of ambiguity, it probably needs to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standard should be modified to address a lack of clarity? Consider:

   a. Is this a Version 0 Reliability Standard?
   b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
   c. Are the requirements consistent with the purpose of the Reliability Standard?

   ☐ Yes
   ☒ No

   Please summarize your assessment: This is not a Version 0 Reliability Standard; it does not have obviously ambiguous language or language that requires performance that is not measurable; and the requirements are consistent with the purpose of the Reliability Standard.

3. **Definitions**: Do any of the defined terms used within the Reliability Standard need to be refined?

   ☐ Yes
   ☒ No

Please explain: None of the defined terms used within the Reliability Standard need to be refined.

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered "No," please identify which elements require revision, and why:

   ☒ Yes
   ☐ No

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered "Yes," please describe the changes needed to achieve formatting and language consistency:

   ☐ Yes
   ☒ No

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered "Yes," please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

   ☐ Yes
   ☒ No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

   ☒ Yes
   ☐ No

   Guiding Questions:

   If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to

be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) Not applicable.

If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) No.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- ☒ AFFIRM
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*: FAC-013-2 is clear, measurable, enforceable, and reliability-based. Thus, the FYRT recommends affirming it. While TPL-001-4, which is pending FERC approval, also deals with Transmission system planning performance requirements, FAC-013-2 serves the unique purpose of addressing Transfer Capability stress tests, which are not explicitly addressed in TPL-001-4. There would be a reliability gap if FAC-013-2 were to be retired.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- ☐ AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*:

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "Acceptance Criteria of a Reliability Standard."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?

b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?

c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.[4] Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities ("entities") to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines "reliable operation" as: "… operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

[4] In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention
These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation
The Reliability Standard requirement requires responsible entities to develop a document (*e.g.,* plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting
The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates
The Reliability Standard requirement requires responsible entities to periodically update (*e.g.,* annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice
The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant
The Reliability Standard 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.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, 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 retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)
Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?
The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?
The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection ("CIP") requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?
The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

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Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?
The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In order words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?
The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

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Five-Year Review Recommendation to Delay Review of Three FAC Standards

FAC-010-2.1: System Operating Limits Methodology for the Planning Horizon
FAC-011-2: System Operating Limits Methodology for the Operations Horizon
FAC-014-2: Establish and Communicate System Operating Limits

Introduction

NERC has an obligation to conduct periodic reviews of each Reliability Standard developed through NERC's American National Standards Institute-accredited Reliability Standards development process.[1] FAC-010-2.1 (which became enforceable on April 19, 2010), FAC-011-2 (which became enforceable on April 29, 2009), and FAC-014-2 (which became enforceable on April 29, 2009), are not yet due for a review. However, they being reviewed as part of a comprehensive review project for all FAC standards. Because these standards are closely related and all could be impacted by other standards projects that are pending approval at FERC, they were reviewed together.

The NERC Standards Committee appointed six industry experts to serve on the FAC five-year review team (FYRT) on April 22, 2013. FYRTs use the background information and the questions set forth in the Five-Year Review Template developed by NERC and approved by the NERC Standards Committee, along with associated worksheets and reference documents, to guide a comprehensive review that results in a recommendation that the Reliability Standard should be (1) affirmed as is (i.e., no changes needed); (2) revised (which may include revising or retiring one or more requirements); or (3) withdrawn.

The FYRT recommends **DELAYING THE REVIEW** of FAC-010-2.1, FAC-011-2, and FAC-014-2 until FERC acts on TOP-001-2—Transmission Operations, TOP-002-3—Operations Planning, and TOP-003-2—Operational Reliability Data (filed for approval on April 16, 2013) and TPL-001-4—Transmission System Planning Performance Requirements (filed for approval on February 29, 2013). The FYRT notes that a separate effort is ongoing to determine whether the regional differences in FAC-010-2.1 and FAC-011-2 can be retired.

[1] The currently effective Standard Processes Manual (SPM), which became effective on June 27, 2013, obligates NERC to conduct periodic reviews of all Reliability Standards at least once every ten years, and periodic reviews only of those standards that are American National Standards (approved by the American National Standards Institute) at least once every five years. None of the FAC standards is an American National Standard, and thus the FAC standards would only require review at least once every ten years under the current SPM. However, the former SPM, which became effective on January 31, 2012, required all standards to undergo a five-year review, and this five-year review process was launched under that SPM. The periodic review process is addressed on page 45 of the current SPM: http://www.nerc.com/pa/Stand/Resources/Documents/Appendix_3A_StandardsProcessesManual.pdf.

Applicable Reliability Standards: FAC-010-2.1, FAC-011-2, and FAC-014-2
Team Members: 1. John Beck (Chair), Consolidated Edison Co. of New York 2. Michael Steckelberg (Vice Chair), Great River Energy 3. Brian Dale, Georgia Power Company 4. Ruth Kloecker, ITC Holdings 5. Stewart Rake, Luminant Generation Company 6. Ganesh Velummylum, Northern Indiana Public Service Company 7. Mallory Huggins (Lead Standards Developer), NERC 8. Sean Cavote (Supporting Standards Developer), NERC 9. Ed Dobrowolski (Supporting Standards Developer), NERC
Date Review Completed: 07/19/13

Background Information *(completed by NERC staff)*

1. Are there any outstanding Federal Energy Regulatory Commission directives associated with the Reliability Standards?

   ☐ Yes

   ☒ No

2. Have stakeholders requested clarity on the Reliability Standards in the form of an Interpretation (outstanding, in progress, or approved), Compliance Application Notice (CAN) (outstanding, in progress, or approved), or an outstanding submission to NERC's Issues Database? (If there are, NERC staff will include a list of the Interpretation(s), CAN(s), or stakeholder-identified issue(s) contained in the NERC Issues Database that apply to the Reliability Standards.)

   ☐ Yes

   ☒ No

3. Are the Reliability Standards some of the most violated Reliability Standards? If so, does the root cause of the frequent violation appear to be a lack of clarity in the language?

   ☐ Yes

   ☒ No

   Please explain: FAC-010-2.1, FAC-011-2, and FAC-014-2 were not among the most violated standards in 2012.[2] None of the requirements in FAC-010-2.1, FAC-011-2, or FAC-014-2 appear on the 2013 Actively Monitored List.[3]

4. Do Reliability Standards need to be converted to the results-based standard format as outlined in *Attachment 1: Results-Based Standards*? (Note that the intent of this question is to ensure that, as Reliability Standards are reviewed, the formatting is changed to be consistent with the current format of a Reliability Standard. If the answer is yes, the formatting should be updated when the Reliability Standard is revised.)

[2] The 2012 Compliance Monitoring and Evaluation Annual Report can be found here: http://www.nerc.com/pa/comp/Reports%20DL/2012_CMEP_Report_Rev1.pdf.

[3] The 2013 Actively Monitored List can be found here: http://www.nerc.com/pa/comp/Resources/_layouts/xlviewer.aspx?id=/pa/comp/Resources/ResourcesDL/2013%20Actively_Monitored_Reliability_Standards_rev3.xlsx&Source=http%3A%2F%2Fwww%2Enerc%2Ecom%2Fpa%2Fcomp%2FResources%2FPages%2Fdefault%2Easpx&DefaultItemOpen=1&DefaultItemOpen=1.

☐ Yes
☒ No

At this time, FAC-010-2.1, FAC-011-2, and FAC-014-2 should not be converted to a Results-Based Standard template, but when the standards are thoroughly reviewed in the future, conversion may be necessary.

Questions for SME Review Team

1. **Paragraph 81**: Does one or more of the requirements in the Reliability Standards meet criteria for retirement or modification based on Paragraph 81 concepts? Use *Attachment 2: Paragraph 81 Criteria* to make this determination.

   ☒ Yes

   ☐ No

   Please summarize your application of Paragraph 81 Criteria, if any: After a preliminary review, the team identified some possible redundancies with FAC-010-2.1, FAC-011-2, and FAC-014-2 requirements and the TOP and TPL standards that are pending FERC approval. The FYRT recommends a thorough Paragraph 81 review once FERC has acted on those TOP and TPL standards.

2. **Clarity:** If the Reliability Standards have an Interpretation, CAN, or issue associated with it, or are frequently violated because of ambiguity, they probably need to be revised for clarity. Beyond these indicators, is there any reason to believe that the Reliability Standards should be modified to address a lack of clarity? Consider:

   a. Is this a Version 0 Reliability Standard?
   b. Does the Reliability Standard have obviously ambiguous language or language that requires performance that is not measurable?
   c. Are the requirements consistent with the purpose of the Reliability Standard?

   ☒ Yes

   ☐ No

   Please summarize your assessment: These are not Version 0 Reliability Standards. But after a preliminary review, the team identified some possible opportunities for clarification that should be considered after FERC acts on the TOP and TPL standards.

3. **Definitions**: Do any of the defined terms used within the Reliability Standard need to be refined?

   ☐ Yes

   ☒ No

Please explain: The FYRT reviewed the definition of "System Operating Limit" and determined that there is no need to propose modification to the NERC glossary definition of System Operating Limit. While the definition leaves some opportunity for interpretation, FYRT members agreed that such flexibility was by design, and leaves specificity up to the appropriate entities (Independent System Operators and Reliability Coordinators).

4. **Compliance Elements:** Are the compliance elements associated with the requirements (Measures, Data Retention, VRFs, and VSLs) consistent with the direction of the Reliability Assurance Initiative and FERC and NERC guidelines? If you answered "No," please identify which elements require revision, and why:

   ☐ Yes
   ☒ No

   While the FYRT is not recommending any specific revisions to the compliance elements at this time, revisions may be necessary after the thorough review in coordination with the TOP and TPL standards.

5. **Consistency with Other Reliability Standards:** Does the Reliability Standard need to be revised for formatting and language consistency among requirements within the Reliability Standard or consistency with other Reliability Standards? If you answered "Yes," please describe the changes needed to achieve formatting and language consistency:

   ☒ Yes
   ☐ No

   Again, the FYRT is not proposing any specific recommendations at this time, but team members do believe that some revisions may be necessary to add clarity and eliminate redundancy with the newly revised TOP and TPL standards.

   FAC-010-2.1, FAC-011-2, and FAC-014-2 were written from the context of the concepts found in the TOP and TPL standards in existence at the time. Since that time, significant changes have taken place in the TOP standards (now proposed for consolidation into TOP-001-2, TOP-002-3, TOP-003-2) and in the TPL standards (now proposed for consolidation into TPL-001-4). For instance, the TPL standards have expanded to the extent that may render some portions of FAC-010-2.1 as either obsolete or redundant. And the new TOP standards have changed significantly, focusing more on sharing data, performing Operational Planning Analyses, and ensuring acceptable performance day-ahead. These significant changes in TOP and TPL standards – as well as changes in approaches to writing these standards – necessitates revisiting FAC-010-2.1, FAC-011-2, and FAC-014-2 from a holistic and fundamental perspective in light of these changes.

6. **Changes in Technology, System Conditions, or other Factors:** Does the Reliability Standard need to be revised to account for changes in technology, system conditions, or other factors? If you answered "Yes," please describe the changes and specifically what the potential impact is to reliability if the Reliability Standard is not revised:

   ☐ Yes

   ☒ No

7. **Consideration of Generator Interconnection Facilities:** Is responsibility for generator interconnection Facilities appropriately accounted for in the Reliability Standard?

   ☒ Yes

   ☐ No

   Guiding Questions:

   If the Reliability Standard is applicable to GOs/GOPs, is there any ambiguity about the inclusion of generator interconnection Facilities? (If generation interconnection Facilities could be perceived to be excluded, specific language referencing the Facilities should be introduced in the Reliability Standard.) Not applicable.

   If the Reliability Standard is not applicable to GOs/GOPs, is there a reliability-related need for treating generator interconnection Facilities as transmission lines for the purposes of this Reliability Standard? (If so, GOs and GOPs that own or operate relevant generator interconnection Facilities should be explicit in the applicability section of the Reliability Standard.) No.

Recommendation

The answers to the questions above, along with a preliminary recommendation of the SMEs conducting the review of the Reliability Standard, will be posted for a 45-day informal comment period, and the comments publicly posted. The SMEs will review the comments to evaluate whether to modify their initial recommendation, and will document the final recommendation which will be presented to the Standards Committee.

Preliminary Recommendation from the FYRT:

- ☐ AFFIRM
- ☐ REVISE
- ☐ RETIRE
- ☒ DELAY REVIEW

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*: The FYRT is proposing a fourth option for its recommendation – a recommendation to delay the full five-year review until a later date. This review should take place soon after the TOP and TPL standards are approved, assuming these standards are approved, and this recommendation should not be construed to delay the review another five to ten years.

Preliminary Recommendation posted for industry comment (date): MM/DD/13

Final Recommendation (to be completed by the SME team after it has reviewed industry comments on the preliminary recommendation):

- ☐ AFFIRM *(This should only be checked if there are no outstanding directives, interpretations or issues identified by stakeholders.)*
- ☐ REVISE
- ☐ RETIRE

Technical Justification *(If the SME team recommends that the Reliability Standard be revised, a draft SAR may be included and the technical justification included in the SAR)*:

Date submitted to NERC Staff:

Attachment 1: Results-Based Standards

The fourth question for NERC staff asks if the Reliability Standard needs to be converted to the results-based standards (RBS) format. The information below will be used by NERC staff in making this determination, and is included here as a reference for the SME team and other stakeholders.

RBS standards employ a defense-in-depth strategy for Reliability Standards development where each requirement has a role in preventing system failures and the roles are complementary and reinforcing. Reliability Standards should be viewed as a portfolio of requirements designed to achieve an overall defense-in-depth strategy and comply with the quality objectives identified in the resource document titled, "Acceptance Criteria of a Reliability Standard."

A Reliability Standard that adheres to the RBS format should strive to achieve a portfolio of performance-, risk-, and competency-based mandatory reliability requirements that support an effective defense-in-depth strategy. Each requirement should identify a clear and measurable expected outcome, such as: a) a stated level of reliability performance, b) a reduction in a specified reliability risk, or c) a necessary competency.

a. **Performance-Based**—defines a particular reliability objective or outcome to be achieved. In its simplest form, a results-based requirement has four components: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome?

b. **Risk-Based**—preventive requirements to reduce the risks of failure to acceptable tolerance levels. A risk-based reliability requirement should be framed as: who, under what conditions (if any), shall perform what action, to achieve what particular result or outcome that reduces a stated risk to the reliability of the bulk power system?

c. **Competency-Based**—defines a minimum set of capabilities an entity needs to have to demonstrate it is able to perform its designated reliability functions. A competency-based reliability requirement should be framed as: who, under what conditions (if any), shall have what capability, to achieve what particular result or outcome to perform an action to achieve a result or outcome or to reduce a risk to the reliability of the bulk power system?

Additionally, each RBS-adherent Reliability Standard should enable or support one or more of the eight reliability principles listed below. Each Reliability Standard should also be consistent with all of the reliability principles.

1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

8. Bulk power systems shall be protected from malicious physical or cyber attacks.

If the Reliability Standard does not provide for a portfolio of performance-, risk-, and competency-based requirements or consistency with NERC's reliability principles, NERC staff should recommend that the Reliability Standard be reformatted in accordance with RBS format.

Attachment 2: Paragraph 81 Criteria

The first question for the SME Review Team asks if one or more of the requirements in the Reliability Standard meet(s) criteria for retirement or modification based on Paragraph 81 concepts.[4] Use the Paragraph 81 criteria explained below to make this determination. Document the justification for the decisions throughout and provide them in the final assessment in the Five-Year Review worksheet.

For a Reliability Standard requirement to be proposed for retirement or modification based on Paragraph 81 concepts, it must satisfy **both**: (i) Criterion A (the overarching criterion) and (ii) at least one of the Criteria B listed below (identifying criteria). In addition, for each Reliability Standard requirement proposed for retirement or modification, the data and reference points set forth below in Criteria C should be considered for making a more informed decision.

Criterion A (Overarching Criterion)

The Reliability Standard requirement requires responsible entities ("entities") to conduct an activity or task that does little, if anything, to benefit or protect the reliable operation of the BES.

Section 215(a) (4) of the United States Federal Power Act defines "reliable operation" as: "… operating the elements of the bulk-power system within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements."

Criteria B (Identifying Criteria)

B1. Administrative

The Reliability Standard requirement requires responsible entities to perform a function that is administrative in nature, does not support reliability and is needlessly burdensome.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability and whose retirement or modification will result in an increase in the efficiency of the ERO compliance program. Administrative functions may include a task that is related to developing procedures or plans, such as establishing communication contacts. Thus, for certain requirements, Criterion B1 is closely related to Criteria B2, B3 and B4. Strictly administrative functions do not inherently negatively impact reliability directly and, where possible, should be eliminated or modified for purposes of efficiency and to allow the ERO and entities to appropriately allocate resources.

[4] In most cases, satisfaction of the Paragraph 81 criteria will result in the retirement of a requirement. In some cases, however, there may be a way to modify a requirement so that it no longer satisfies Paragraph 81 criteria. Recognizing that, this document refers to both options.

B2. Data Collection/Data Retention
These are requirements that obligate responsible entities to produce and retain data which document prior events or activities, and should be collected via some other method under NERC's rules and processes.

This criterion is designed to identify requirements that can be retired or modified with little effect on reliability. The collection and/or retention of data do not necessarily have a reliability benefit and yet are often required to demonstrate compliance. Where data collection and/or data retention is unnecessary for reliability purposes, such requirements should be retired or modified in order to increase the efficiency of the ERO compliance program.

B3. Documentation
The Reliability Standard requirement requires responsible entities to develop a document (*e.g.,* plan, policy or procedure) which is not necessary to protect BES reliability.

This criterion is designed to identify requirements that require the development of a document that is unrelated to reliability or has no performance or results-based function. In other words, the document is required, but no execution of a reliability activity or task is associated with or required by the document.

B4. Reporting
The Reliability Standard requirement obligates responsible entities to report to a Regional Entity, NERC or another party or entity. These are requirements that obligate responsible entities to report to a Regional Entity on activities which have no discernible impact on promoting the reliable operation of the BES and if the entity failed to meet this requirement there would be little reliability impact.

B5. Periodic Updates
The Reliability Standard requirement requires responsible entities to periodically update (*e.g.,* annually) documentation, such as a plan, procedure or policy without an operational benefit to reliability.

This criterion is designed to identify requirements that impose an updating requirement that is out of sync with the actual operations of the BES, unnecessary, or duplicative.

B6. Commercial or Business Practice
The Reliability Standard requirement is a commercial or business practice, or implicates commercial rather than reliability issues.

This criterion is designed to identify those requirements that require: (i) implementing a best or outdated business practice or (ii) implicating the exchange of or debate on commercially sensitive information while doing little, if anything, to promote the reliable operation of the BES.

B7. Redundant
The Reliability Standard 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.).

This criterion is designed to identify requirements that are redundant with other requirements and are, therefore, unnecessary. Unlike the other criteria listed in Criterion B, 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 retired or modified with little or no effect on reliability and removal will result in an increase in efficiency of the ERO compliance program.

Criteria C (Additional data and reference points)
Use the following data and reference points to assist in the determination of (and justification for) whether to proceed with retirement or modification of a Reliability Standard requirement that satisfies both Criteria A and B:

C1. Was the Reliability Standard requirement part of a FFT filing?
The application of this criterion involves determining whether the requirement was included in a FFT filing.

C2. Is the Reliability Standard requirement being reviewed in an ongoing Standards Development Project?
The application of this criterion involves determining whether the requirement proposed for retirement or modification is part of an active Standards Development Project, with consideration for the status of the project. If the requirement has been approved by Registered Ballot Body and is scheduled to be presented to the NERC Board of Trustees, in most cases it will not need to be addressed in the five-year review. The exception would be a requirement, such as the Critical Information Protection ("CIP") requirements for Version 3 and 4, that is not due to be retired for an extended period of time. Also, for informational purposes, whether the requirement is included in a future or pending Standards Development Project should be identified and discussed.

C3. What is the VRF of the Reliability Standard requirement?
The application of this criterion involves identifying the VRF of the requirement proposed for retirement or modification, with particular consideration of any requirement that has been assigned as having a Medium or High VRF. Also, the fact that a requirement has a Lower VRF is not dispositive that

it qualifies for retirement or modification. In this regard, Criterion C3 is considered in light of Criterion C5 (Reliability Principles) and C6 (Defense in Depth) to ensure that no reliability gap would be created by the retirement or modification of the Lower VRF requirement. For example, no requirement, including a Lower VRF requirement, should be retired or modified if doing so would harm the effectiveness of a larger scheme of requirements that are purposely designed to protect the reliable operation of the BES.

C4. In which tier of the most recent Actively Monitored List (AML) does the Reliability Standard requirement fall?

The application of this criterion involves identifying whether the requirement proposed for retirement or modification is on the most recent AML, with particular consideration for any requirement in the first tier of the AML.

C5. Is there a possible negative impact on NERC's published and posted reliability principles?

The application of this criterion involves consideration of the eight following reliability principles published on the NERC webpage.

Reliability Principles

NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.

Principle 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.

Principle 2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.

Principle 3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

Principle 4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.

Principle 5. Facilities for communication, monitoring, and control shall be provided, used, and maintained for the reliability of interconnected bulk power systems.

Principle 6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.

Principle 7. The reliability of the interconnected bulk power systems shall be assessed, monitored, and maintained on a wide-area basis.

Principle 8. Bulk power systems shall be protected from malicious physical or cyber attacks. (footnote omitted).

C6. Is there any negative impact on the defense in depth protection of the BES?
The application of this criterion considers whether the requirement proposed for retirement or modification is part of a defense in depth protection strategy. In order words, the assessment is to verify whether other requirements rely on the requirement proposed for retirement or modification to protect the BES.

C7. Does the retirement or modification promote results or performance based Reliability Standards?
The application of this criterion considers whether the requirement, if retired or modified, will promote the initiative to implement results- and/or performance-based Reliability Standards.

FAC Five-Year Review Action Plan

fort	Task	Description	Lead Organization	Deliverables	Estimated Completion
	Brief the Standards Committee	Informally discuss the work plan for this project with the SC	Standards	SC Talking Points document Five-Year Review Template Standards Announcement	Complete
	Issue Standards Announcement	Invite industry SMEs to serve on the Five-Year Review Team	Standards	Standards Announcement	Complete
	Propose FYRT members	Review FYRT nominations and recommend FYRT members to the SC	Standards	FYRT Roster recommendation for SC	Complete
	Finalize FYRT	Obtain SC approval of Review Team members	Standards Committee	Review Team Approval	Complete
	Advise FYRT members	Advise FYRT members and leadership of status, date range of initial FYRT conference call and face-to-face meeting, and provide documents	Standards	Email to FYRT members (include Doodle for tentative event scheduling) Five-Year Review Template Project Action Plan	Complete
	Internal conference call to discuss five-year review	Finalize recommendations on directives, RBS, and P81	Standards (Mallory, Edd, Sean)	Complete Staff Section of Five-Year Review Template	Complete
Prepara tion	Review FYR template and make tentative recommendations	Develop plan for NERC review of directives, RBS, and P81	Standards (Mallory)	Five-Year Review Template	Complete

	Industry Training webinar	Train industry and FYRT on the five-year review process, particularly as it pertains to this project	Standards	Five-Year Review PowerPoint Five-Year Review Template	Complete
	Initial FYRT conference call	Review Team introductions, confirm receipt of documents, discuss Action Plan, discuss initial NERC recommendations, schedule first face-to-face meeting	Review Team	Meeting Notes	Complete
	FYRT Meeting	First Five-Year Review Team meeting to develop Draft Five-Year-Review Recommendation	Review Team	Meeting Notes Draft Five-Year Review Recommendations	Complete
	Review Team conference call (if necessary)	Further develop Draft Five-Year-Review Recommendation	Review Team	Revise draft Five-Year Review Recommendations and supporting documents, as needed	Complete
	Review Team conference call(s)	Finalize posting for comment	Review Team	Finalize Five-Year Review Recommendations and supporting documents, as needed	July 11, 2013 - Complete July 17, 2013 – Complete
	Post recommendations and Standard Authorization Request	Recommend whether the Reliability Standards should be reaffirmed, revised, or withdrawn	Standards	Five-Year Review Recommendations and SAR	Complete – posted August 2-September 16, 2013
	Webinar	Advise industry of Review Team recommendation	Review Team Chair/Standards	Final Five-Year Review Recommendation PowerPoint	Complete

	Review Team conference call or Review Team Meeting	Respond to comments on original recommendation; revise as necessary	Review Team	Five-Year Review Consideration of Comments and Final Recommendation document	September 30-October 2, 2013
	Submit Documents to Standards Committee	Complete Five-Year Review	Review Team	Provide to Standards Committee industry comments, FYRT response to comments, final recommendations, draft SAR for FAC-001 and FAC-002 (assuming they're supported by the industry), and a request for nominations for an SDT	By October 4, 2013
	Submit Documents to BOT	Submit recommendations for affirmation to BOT	Standards (Mallory)	If stakeholders are supportive, submit FAC-003-3, FAC-008-3, and FAC-013-2 recommendations to BOT for approval. Report on status of other recommendations as well. Documents should be submitted assuming they will be approved by the SC.	By October 4, 2013
	Standards Committee action	Act on FYRT recommendation (October 17, 2013)	Standards Committee	Reaffirmation to the BOT or act on SAR	October 17, 2013
	Board of Trustees Action	Act on FYRT recommendations for affirmation	Board of Trustees		November 6-7, 2013
	Revise SAR; prepare first standard drafts for posting				TBD
	Post for 45-day comment and ballot period				TBD

Post Review Activities	Revise standards according to feedback, if necessary				TBD
	Post for recirculation ballot				TBD
	Present to the BOT				TBD

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Team Roster

FAC Five-Year Review Team

	Participant	Entity
Chair	John Beck	Con Edison
Vice Chair	Michael Steckelberg	Great River Energy
Member	Brian Dale	Georgia Power Company
Member	Ruth Kloecker	ITC Holdings
Member	Stewart Rake	Luminant Generation Company LLC
Memebr	Ganesh Velummylum	Northern Indiana Public Service Co.
NERC Staff	Mallory Huggins (Lead Standards Developer)	NERC
NERC Staff	Sean Cavote (Supporting Standards Developer)	NERC
NERC Staff	Ed Dobrowolski (Supporting Standards Developer)	NERC
NERC Staff	Laura Hussey (Director of Standards Development)	NERC

Version	Date	Description
1.0	5/13/2013	Initial posting
2.0	5/21/2013	Updated to add new member