

# Consideration of Comments

## Generator Requirements at the Transmission Interface Project 2010-07

On January 20, 2012, Exelon submitted a Level One Appeal of the standard process for FAC-003-3 and FAC-003-X to NERC's Vice President of Standards and Training that stated the following: "Exelon believes that the NERC Standards Process Manual was not followed, and that based on the substantive changes made to both Standards following the Initial Ballot, NERC should have set the Standards for vote using a Successive Ballot rather than a Recirculation Ballot."

NERC's Vice President of Standards and Training submitted a timely response to the appeal that found that "Exelon...made its case that the [Standard Processes Manual] was not adhered to and that a change impacting applicability was made between the last successive and recirculation ballot." Accordingly, the Vice President of Standards and Training referred the issue to the Standards Committee for handling, suggesting the following options:

1. Re-post the standard for a successive ballot and recirculation ballot. Essentially set the clock back and correctly replay the last steps of the process.
2. Ask the SDT to remove the clarification language from the final standard and go directly to recirculation ballot.
3. Ask the SDT to redesign the challenged portion of the proposed standard.

He recommended that the Standards Committee pursue option 2. In a Standards Committee Executive Committee (SCEC) conference call on February 23, 2012, the SCEC directed NERC staff to void the FAC-003-3 and FAC-003-X recirculation ballot results of December 2011 and "remand the work to the drafting team with direction to take into account the issues raised in the Exelon appeal submitted in response to the recirculation ballot previously conducted and either: modify the language added following the initial ballot and then re-post the standard for a successive ballot, or remove the language added following the initial ballot and go directly to recirculation ballot."

The Project 2010-07 SDT considered Exelon's appeal in the context of other stakeholder comments submitted in the first successive ballot between October 5 and November 18, 2011. The SDT continues to believe that a reference to line of sight is clarifying.

With this line of sight reference, the SDT simply seeks to clarify the exception language based on the intent that has been agreed upon by the stakeholder body. In its Consideration of Comments report from the last formal comment period, which ended on July 17, 2011, the SDT explained "We believe that the one mile length is a reasonable approximation of line of sight, and that using a fixed starting

point (at the fenced area of the generation station switchyard) eliminates confusion and any discretion on the part of a Generator Owner or an auditor.” With the addition of an explicit line of sight reference here, the SDT believes it has clarified its original intent and appropriately considered all comments submitted.

The SDT has modified 4.3.1 to include a reference to line of sight. 4.3.1 of FAC-003-X now reads:

Generator Owner that owns an overhead transmission line(s) that (1) extends greater than one mile or 1.609 kilometers beyond the fenced area of the generating station switchyard to the point of interconnection with a Transmission Owner’s Facility or (2) does not have a clear line of sight from the generating station switchyard fence to the point of interconnection with a Transmission Owner’s Facility and is operated at 200 kV and above and any lower voltage lines designated by the Regional Entity as critical to the reliability of the electric system in the region.

4.3.1 of FAC-003-3 now reads:

Overhead transmission lines that (1) extend greater than one mile or 1.609 kilometers beyond the fenced area of the generating station switchyard to the point of interconnection with a Transmission Owner’s Facility or (2) do not have a clear line of sight from the generating station switchyard fence to the point of interconnection with a Transmission Owner’s Facility and are: Operated at 200kV or higher; or operated below 200kV identified as an element of an IROL under NERC Standard FAC-014 by the Planning Coordinator. Operated below 200 kV identified as an element of a Major WECC Transfer Path in the Bulk Electric System by WECC.

Both references to clear line of sight include a footnote stating: “‘Clear line of sight’ means the distance that can be seen by the average person without special instrumentation (e.g., binoculars, telescope, spyglasses, etc.) on a clear day.”

Additionally, “Regional Entity” has been removed from the applicability section of FAC-003-X because it is not a recognized Functional Entity.

The FAC-003-3 and FAC-003-X recirculation ballot results of December 2011 have been voided, and both standards are being posted for a 30-day concurrent comment period and successive ballot to allow stakeholders the opportunity to comment on these changes.

Members of the ballot pool should note that for this ballot, the SDT will be balloting **both** FAC-003-3 and FAC-003-X, but stakeholders should **not** vote as though they are choosing one or the other. The SDT plans to present FAC-003-3 alone to NERC’s Board of Trustees, but it wants to have FAC-003-X ready to submit to the Board if, for some reason, neither FAC-003-2 nor FAC-003-3 are approved by FERC. Members of the ballot body should vote on the merits of each version of FAC-003 individually. In

other words, stakeholders who support adding GOs to the applicability of FAC-003 should vote in the affirmative for both FAC-003-3 and FAC-003-X.

The Exelon appeal and NERC response are posted on the 2010-07 project page.

Status of other standards that are part of Project 2010-07:

- FAC-001-1 and PRC-004-2.1a were adopted by NERC’s Board of Trustees on February 9, 2012
- PRC-005-1.1a is currently posted for a 45-day concurrent comment and initial ballot.

No standards modified under Project 2010-07 will be filed with regulatory authorities until the Board of Trustees has acted on the complete package of four standards.

~~In FAC-003-X and FAC-003-3, the SDT added a clarifying reference to line of sight in the GO exemption in section 4.3.1. of both versions; corrected a typo in 4.3.1.2 of FAC-003-3; and changed “RE” to “Regional Entity” in 4.3.1 of FAC-003-X.~~

~~As it discusses in the document titled “Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,” the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.~~

~~To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: “Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”~~

~~With this reference, the SDT simply seeks to clarify the exception language based on the intent that has been agreed upon by the stakeholder body. In its Consideration of Comments report from the last formal comment period, which ended on July 17, 2011, the SDT explained “We believe that the one mile length is a reasonable approximation of line of sight, and that using a fixed starting point (at the fenced area of the generation station switchyard) eliminates confusion and any discretion on the part of a Generator Owner or an auditor.” With the addition of an explicit line of sight reference here, the SDT believes it has clarified its original intent and appropriately considered all comments submitted.~~

~~Members of the ballot pool should note that for its recirculation ballot, the SDT will be balloting both FAC-003-3 and FAC-003-X, but stakeholders should not vote as though they are choosing one or the other. The SDT plans to present FAC-003-3 alone to NERC's Board of Trustees, but it wants to have FAC-003-X ready to submit to the Board if, for some reason, neither FAC-003-2 nor FAC-003-3 are approved by FERC. Members of the ballot body should vote on the merits of each version of FAC-003 individually. In other words, stakeholders who support adding GOs to the applicability of FAC-003 should vote in the affirmative for both FAC-003-3 and FAC-003-X.~~

While this summary has been updated to reflect the status of FAC-003-3 and FAC-003-X, the SDT's responses to stakeholder comments below have not changed, except as they relate to FAC-003-3 and FAC-003-X.

All comments submitted may be reviewed in their original format on the standard's project page:

[http://www.nerc.com/filez/standards/Project2010-07\\_GOTO\\_Project.html](http://www.nerc.com/filez/standards/Project2010-07_GOTO_Project.html)

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, Herb Schrayshuen, at 404-446-2560 or at [herb.schrayshuen@nerc.net](mailto:herb.schrayshuen@nerc.net). In addition, there is a NERC Reliability Standards Appeals Process.<sup>1</sup>

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<sup>1</sup> The appeals process is in the Standard Processes Manual: [http://www.nerc.com/files/Appendix\\_3A\\_Standard\\_Processes\\_Manual\\_20110825.pdf](http://www.nerc.com/files/Appendix_3A_Standard_Processes_Manual_20110825.pdf).

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

1. Based on stakeholder comment, the SDT clarified the applicability language of FAC-001-1 and removed the Generator Owner from R4. Do you support the proposed redline changes to FAC-001-1? (Please refer to the posted FAC-001-1 technical justification document for more information about the SDT’s rationale for its changes.) ..... 12

2. Do you support the one year compliance timeframe for Generator Owners as proposed in the Implementation Plan for FAC-001-1? ..... 29

3. With respect to FAC-003, many commenters focused on the half-mile qualifier in FAC-003. Some commenters found the half-mile length too short, others found it too long, and still others found the choice among the starting points of the switchyard, generating station, or generating substation to be confusing. The drafting team attempted to address all of these concerns with its latest proposed standard changes. The qualifier now reads: “...that extends greater than one mile beyond the fenced area of the generating station switchyard...” We believe that the one mile length is a reasonable approximation of line of sight, and that using a fixed starting point (at the fenced area of the generation station switchyard) eliminates confusion and any discretion on the part of a Generator Owner or an auditor. Finally, we maintain that it is appropriate to include this qualifier for Generator Owners because there is a very low risk from vegetation within the line of sight, and thus the formal steps in this standard are not necessary to ensure reliability of these lines.

Taking into consideration that only one of the versions of FAC-003 will actually be implemented, a decision that will be made as Project 2007-07—Vegetation Management moves forward, do you support the proposed redline changes to FAC-003-X and FAC-003-3? ..... 34

4. Do you support compliance timeframe for Generator Owners as included and explained in the Implementation Plans for FAC-003-X? ..... 50

5. In the FAC-003-3 implementation plan, the SDT has attempted to account for a number of different scenarios that could play out with respect to the filing and approvals of FAC-003-2 and FAC-003-3. Do you support this approach? If there are other scenarios that the SDT needs to account for, please suggest them here. .... 57

6. In its technical justification document, the SDT reviews all standards that had been proposed for substantive modification in the Ad Hoc Group’s original support and explains why, with the exception of FAC-003, modifying them would not provide any reliability benefit. Do you support these justifications? If you believe the SDT needs to add more information to its rationale for any of these decisions, please include suggested language here. .... 63

7. The SDT is attempting to modify a set of standards so that radial generator interconnection Facilities are appropriately accounted for in NERC’s Reliability Standards, both to close reliability

- gaps and to prevent the unnecessary registration of GOs and GOPs at TOs and TOPs. Does the set of standards currently posted achieve this goal? ..... 74
- 8. If you answered “yes” to Question 7, are the modifications the SDT has made in this posting the appropriate ones? ..... 87
- 9. If you answered “no” to Question 7, what standards need to be added or removed to achieve the SDT’s goal? Please provide technical justification for your answer. .... 91
- 10. Do you have any other comments that you have not yet addressed? If yes, please explain. .... 99

**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	Gerald Beckerle	SERC OC Standards Review Group	X		X								
1.	Scott Brame	NCEMC	SERC 1, 3, 4, 5											
2.	Troy Willis	Georgia Transmission Corp.	SERC 1											
3.	Mike Hirst	Cogentrix	SERC 5											
4.	Bob Dalrymple	TVA	SERC 1, 3, 5, 6											
5.	Matt Carden	Southern Co.	SERC 1, 5											
6.	Shardra Scott	Gulf Power Co.	SERC 3											
7.	Kerry Sibley	Georgia Transmission Corp.	SERC 1											
8.	Andy Burch	EEL	SERC 5											
9.	Shaun Anders	City of Springfield (CWLP)	SERC 1, 3											
10.	Melinda Montgomery	Entergy	SERC 1, 3, 5											
11.	John Troha	SERC Reliability Corp	SERC 10											
2.	Group	Jonathan Hayes	Southwest Power Pool Standards Development Team		X									
<b>Additional Member</b>		<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>										

Group/Individual	Commenter	Organization	Registered Ballot Body Segment																
			1	2	3	4	5	6	7	8	9	10							
1. Jonathan Hayes	Southwest Power Pool	SPP	2																
2. Robert Rhodes	Southwest Power Pool	SPP	2																
3. Don Taylor	Westar	SPP	1, 3, 5, 6																
4. John Allen	City Utilities of Springfield	SPP	1, 4																
5. Sean Simpson	MCPBPU	SPP	1, 3, 5																
6. Louis Guidry	CLECO	SPP	1, 3, 5																
7. Mitch Williams	Western Farmers	SPP	1, 3, 5																
8. Valerie Pinnamonti	AEP	SPP	1, 3, 5																
9. Bud Averill	Grand River Dam Authority	SPP	1, 3, 5																
10. Terri Pyle	OGE	SPP	1, 3, 5																
3.	Group	Guy Zito, Guy Zito	Northeast Power Coordinating Council, Northeast Power Coordinating Council																X
	<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>															
1.	Alan Adamson	New York State Reliability Council, LLC	NPCC, NPCC	10															
2.	Greg Campoli	New York Independent System Operator	NPCC, NPCC	2															
3.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC, NPCC	1															
4.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC, NPCC	1															
5.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC, NPCC	10															
6.	Brian Evans-Mongeon	Utility Services	NPCC, NPCC	8															
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC, NPCC	5															
8.	Kathleen Goodman	ISO - New England	NPCC, NPCC	2															
9.	Chantel Haswell	FPL Group, Inc.	NPCC, NPCC	5															
10.	David Kiguel	Hydro One Networks Inc.	NPCC, NPCC	1															
11.	Michael R. Lombardi	Northeast Utilities	NPCC, NPCC	1															
12.	Randy MacDonald	New Brunswick Power Transmission	NPCC, NPCC	9															
13.	Bruce Metruck	New York Power Authority	NPCC, NPCC	6															
14.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC, NPCC	10															
15.	Robert Pellegrini	The United Illuminating Company	NPCC, NPCC	1															
16.	Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC, NPCC	1															
17.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC, NPCC	5															
18.	Saurabh Saksena	National Grid	NPCC, NPCC	1															
19.	Michael Schiavone	National Grid	NPCC, NPCC	1															

Group/Individual	Commenter	Organization	Registered Ballot Body Segment											
			1	2	3	4	5	6	7	8	9	10		
20. Wayne Sipperly	New York Power Authority	NPCC, NPCC 5												
21. Tina Teng	Independent Electricity System Operator	NPCC, NPCC 2												
22. Donald Weaver	New Brunswick System Operator	NPCC, NPCC 2												
23. Ben Wu	Orange and Rockland Utilities	NPCC, NPCC 1												
24. Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC, NPCC 3												
4. Group	Emily Pannel	Southwest Power Pool Regional Entity												X
No additional members listed.														
5. Group	Will SMith	MRO NSRF	X	X	X	X	X	X	X	X				X
<b>Additional Member Additional Organization Region Segment Selection</b>														
1.	Mahmood Safi	OPPD	MRO	1, 3, 5, 6										
2.	Chuck Lawrence	ATC	MRO	1										
3.	Jodi Jenson	WAPA	MRO	1, 6										
4.	Ken Goldsmith	ALTW	MRO	4										
5.	Alice Ireland	XCEL/NSP	MRO	1, 3, 5, 6										
6.	Dave Rudolph	BEPC	MRO	1, 3, 5, 6										
7.	Eric Ruskamp	LES	MRO	1, 3, 5, 6										
8.	Joe DePoorter	MGE	MRO	3, 4, 5, 6										
9.	Scott Nickels	RPU	MRO	4										
10.	Terry Harbour	MEC	MRO	1, 3, 5, 6										
11.	Marie Knox	MISO	MRO	2										
12.	Lee Kittelson	OTP	MRO	1, 3, 4, 5										
13.	Scott Bos	MPW	MRO	1, 3, 5, 6										
14.	Tony Eddleman	NPPD	MRO	1, 3, 5										
15.	Mike Brytowski	GRE	MRO	1, 3, 5, 6										
16.	Richard Burt	MPC	MRO	1, 3, 5, 6										
6. Group	Charles W. Long	SERC Planning Standards Subcommittee	X											X
<b>Additional Member Additional Organization Region Segment Selection</b>														
1.	Pat Huntley	SERC	SERC	10										
2.	John Sullivan	Ameren Services Co.	SERC	1										
3.	Philip Kleckley	SC Electric & Gas Co.	SERC	1										
4.	Bob Jones	Southern Company Services	SERC	1										

Group/Individual	Commenter	Organization	Registered Ballot Body Segment												
			1	2	3	4	5	6	7	8	9	10			
5. Jason Adams	TVA	SERC 1													
7. Group	Frank Gaffney	Florida Municipal Power Agency	X		X	X	X	X							
<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>												
1. Timothy Beyrle	City of New Smyrna Beach	FRCC	4												
2. Greg Woessner	Kissimmee Utility Authority	FRCC	3												
3. Jim Howard	Lakeland Electric	FRCC	3												
4. Lynne Mila	City of Clewiston	FRCC	3												
5. Joe Stonecipher	Beaches Energy Services	FRCC	1												
6. Cairo Vanegas	Fort Pierce Utility Authority	FRCC	4												
7. Randy Hahn	Ocala Utility Services	FRCC	3												
8. Group	Mike Garton	Dominion	X		X		X	X							
<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>												
1. Michael Gildea	Dominion Resources Services, Inc.	RFC	5, 6												
2. Connie Lowe	Dominion Resources Services, Inc.	NPCC	5, 6												
3. Michael Crowley	Virginia Electric and Power Company	RFC	1, 3												
9. Group	Annette M. Bannon	PPL NERC Registered Affiliates			X		X	X							
<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>												
1. Brent Ingebrigston	LG&E and KU Services Co.	SERC	3												
2. Don Lock	PPL Brunner Island, LLC	RFC	5												
3.	PPL Martins Creek, LLC	RFC	5												
4.	PPL Holtwood, LLC	RFC	5												
5.	PPL Montour, LLC	RFC	5												
6.	Lower Mount Bethel Energy, LLC	RFC	5												
7. Annete Bannon	PPL Susquehanna, LLC	RFC	5												
8. Leland McMillan	PPL Montana, LLC	WECC	5												
10. Group	Jason Marshall	ACES Power Marketing Standards Collaborators													
<b>Additional Member</b>	<b>Additional Organization</b>	<b>Region</b>	<b>Segment Selection</b>												
1. Mohan Sachdeva	Buckeye Power	RFC	3, 5, 6												
2. Erin Woods	East Kentucky Power Cooperative	SERC	1, 3, 5, 6												
3. Michael Brytowski	Great River Energy	MRO	1, 3, 5, 6												

Group/Individual		Commenter	Organization	Registered Ballot Body Segment											
				1	2	3	4	5	6	7	8	9	10		
11.	Group	Steve Rueckert	Western Electricity Coordinating Council												X
No additional members listed.															
12.	Individual	Jack Cashin	Electric Power Supply Association					X	X						
13.	Individual	Natalie McIntire	American Wind Energy Association					X							
14.	Individual	Tom Flynn	Puget Sound Energy, Inc.	X				X	X						
15.	Individual	Silvia Parada Mitchell	Compliance & Responsibility Organization	X		X		X	X						
16.	Individual	Antonio Grayson	Southern Company	X		X		X	X						
17.	Individual	Chris Higgins/Stephen Enyeart/Chuck Mathews/Charles Sheppard	Bonneville Power Administration	X		X		X	X						
18.	Individual	Thad Ness	American Electric Power	X		X		X	X						
19.	Individual	Carla Bayer	BP Wind Energy North America Inc.					X							
20.	Individual	John Bee on behalf of Exelon	Exelon	X				X							
21.	Individual	Dennis Sismaet	Seattle City Light	X		X	X	X	X						
22.	Individual	Michelle D'Antuono	Ingleside Cogeneration LP (Occidental Chemical)					X							
23.	Individual	Michael Falvo	Independent Electricity System Operator		X										
24.	Individual	Greg Rowland	Duke Energy	X		X		X	X						
25.	Individual	Darryl Curtis	Oncor Electric Delivery Company LLC	X											
26.	Individual	Kirit Shah	Ameren	X		X		X	X						
27.	Individual	John Seelke	PSEG	X		X		X	X						
28.	Individual	Andrew Z. Pusztai	American Transmission Company	X											
29.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	X		X		X	X						
30.	Individual	Ravi Bantu	RES Americas Development					X							
31.	Individual	Katy Wilson	Sempra Generation					X							

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
32.	Individual	Joe Petaski	Manitoba Hydro	X		X		X	X				
33.	Individual	Chris de Graffenried	Consolidated Edison Co. of NY, Inc.	X		X		X	X				
34.	Individual	Ed Davis	Entergy Services	X		X		X	X				
35.	Individual	Alice Ireland	Xcel Energy	X		X		X	X				
36.	Individual	Russell A. Noble	Cowlitz County PUD			X	X	X					
37.	Individual	Anthony Jablonski	ReliabiltyFirst										X
38.	Individual	Donald Jones	Texas Reliability Entity										X
39.	Individual	Amir Hammad	Constellation Power Source Generation					X					
40.	Individual	Dennis Chastain	Tennessee Valley Authority	X		X		X	X				

1. **Based on stakeholder comment, the SDT clarified the applicability language of FAC-001-1 and removed the Generator Owner from R4. Do you support the proposed redline changes to FAC-001-1? (Please refer to the posted FAC-001-1 technical justification document for more information about the SDT’s rationale for its changes.)**

#### Summary Consideration:

The SDT thanks all stakeholders for their comments and their 87% approval for the FAC-001-1 changes posted for ballot in November 2011. Based on stakeholder feedback, the SDT has made the following minor changes to FAC-001-1:

-Corrected a typo in Applicability section 4.2.1 to change “within” to “with.”

-Corrected a typo in the VSLs for R3 to ensure that parts 3.1.1 through 3.1.16 were referenced, rather than just 3.1.1 through 3.1.6.

-Changed references to “Transmission System” to “interconnected Transmission systems” to ensure consistency with the language elsewhere in the standard and in FAC-002-1.

Some stakeholders remain concerned about the intent of the SDT’s work on FAC-001-1. The SDT reminded them that the scope is addressed in the SAR. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT determined that it should first address “low-hanging fruit” and believes these to be sole-use Facilities (see posted examples under “Supporting Materials”) – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP). Through its deliberations, the SDT concluded that an interconnection Facility owned or operated by a GO or GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT.

Concerned commenters were also referred to one of the SDT’s resource documents: [Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document](#).

Some commenters suggested changes to Requirements R1 or R4, which deal exclusively with the Transmission Operator and are outside the scope of the SDT’s work.

One commenter suggested formatting changes. The SDT agrees with the commenter that there are a number of ways to format the standard with this SDT’s revisions. However, the majority of stakeholders support the current format of the standard and no change was made.

One commenter suggested that the phrase “Generator Owner’s existing Facility” be changed to “Generator Owner’s existing Transmission Facility.” The SDT does not agree with labeling a GO’s Facility as “Transmission,” in part because in

some areas (like Texas), GOs, by statute, can't own Transmission. It was also brought to the SDT's attention that in most cases, the Facility in question is referred to as the Interconnection Facility in documents filed by the GO with FERC. Therefore, the SDT intentionally modified language so that a Facility owned by a generation entity did not contain the term "Transmission."

One commenter did not agree with the overall clarifying change to the Applicability section, but the SDT reminded this commenter that this change was made to address previous comments that indicated that there was uncertainty as to whether "another Facility to its existing generation Facility" was meant to address connecting additional generators by the same GO. The SDT intends FAC-001-1 to apply only when the GO of an existing Facility executes an agreement to evaluate the reliability impact of connecting additional generation owned by another GO. No change made with respect to this comment.

A few stakeholders were concerned with the 45-day time frame included in the standard. The SDT pointed out that majority of stakeholders and the SDT support 45 days as a sufficient time frame because in many cases, the GO would simply need to adopt (document and publish) the Facility connection requirements of its TO. No change to that time frame was made.

Organization	Yes or No	Question 1 Comment
Manitoba Hydro	Negative	The intention of the NERC SDT in revising these standards is not clear. While the Technical Justification document states that the SDT intended to focus on a Generator Owner's radial interconnection facilities, the scope of the revised standard (s) is not confined to such facilities. The very broadly defined term "Facility" is used. Moreover, the Technical Justification document's reference to the FERC decision in Cedar Creek as a basis for the revision of additional standards is confusing, since that decision did not specifically address the issue of radial facilities and supported NERC's registration of GOs as TOs.
<p><b>Response:</b> Thank you for your comment. The scope of this SDT is addressed in the <a href="#">SAR</a>. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT determined that it should first address "low-hanging fruit" and believes these to be sole-use Facilities (see posted examples under "Supporting Materials") – that is, a Facility used to connect one or more generators to a Facility owned or operated by a</p>		

Organization	Yes or No	Question 1 Comment
<p>transmission entity (TO/TOP). Through our deliberations, we came to the conclusion that an interconnection Facility owned or operated by a GO or GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT.</p> <p>The SDT also refers the commenter to the document titled <a href="#">Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document</a>. Specifically, see the last paragraph on page 4 and first two on page 5.</p>		
Southern Company	No	<p>1) R4 is duplicative of R1 - either remove "maintain" from R1 or delete R4 - both instances of "maintain" are not needed.â€¢ 2) The measures, as written, provide no additional indication of the evidence that could be presented to demonstrate compliance with the Reliability Standard Requirements. They provide little guidance on assessing non-compliance with the Requirements. â€¢</p>
<p><b>Response:</b> Thank you for your comment. We agree with your suggestions, but both are outside the scope of this SDT. These items will be submitted to the Issues Database to be addressed in a future revision of FAC-001.</p>		
Southwest Power Pool Standards Development Team	No	<p>Based on the applicability section of FAC-001 we feel that the strike through should have been kept. It limited the requirement to just those generator owners who had agreements in place, which we feel is appropriate.</p>
<p><b>Response:</b> Thank you for your comment. This change was made to address previous comments that indicated to the SDT there was uncertainty as to whether this was meant to address connecting additional generators by the same GO. The SDT intends FAC-001 to apply only when the GO of an existing Facility executes an agreement to evaluate the reliability impact of connecting additional generation owned by another GO. No change made with respect to this comment.</p>		
Texas Reliability Entity	No	<p>In Section 5.1, the reference to Regional Entity should be removed. There are no requirements that apply to the Regional Entity.</p> <p>In Requirements R1 and R4, "Planning Coordinator" should be added after "Regional Entity." In the ERCOT Region it is the Planning Coordinator that maintains planning criteria and connection requirements. There is no NERC</p>

Organization	Yes or No	Question 1 Comment
		<p>requirement or any obligation (as indicated in the technical justification document) on the part of a GO to specifically execute an Agreement to evaluate the reliability impact of interconnecting a third party Facility. Therefore, this requirement’s applicability is contingent on a prerequisite that may not occur, and that is under the control of the GO. This assumption on the part of the SDT unnecessarily complicates the compliance monitoring and enforcement of this standard. For instance, if an “Agreement” is not executed, a GO is not required to comply with the requirement, even though the GO may ultimately interconnect with another entity. The requirement should be modified to include an applicability trigger similar to that of FAC-002-1, so that once a GO “seek[s] to integrate . . .,” i.e., agrees to or is compelled to allow a third-party interconnection, then the requirement becomes applicable. Otherwise, the compliance and monitoring is subject to the SDT’s speculation as indicated in this language included in the technical justification document: “However, the SDT cannot be certain this is the only example and it therefore proposes to add this new requirement to FAC-001-1. In doing so, the SDT acknowledges that the Generator Owner may not, at the time it agrees or is compelled to allow a third party to interconnect, have the necessary expertise to conduct the required interconnect studies to meet this standard. Assuming that a regulatory body would require a Generator Owner to evaluate such an interconnection request, the SDT expects the Generator Owner and the third party to execute some form of an Agreement.”</p>
<p><b>Response:</b> Thank you for your comment. All of these comments are outside the scope of the <a href="#">SAR</a> and the SDT’s work because they refer specifically to the sections and requirements that apply to the TO alone. We encourage you to consider submitting a SAR that addresses your concerns.</p>		
Manitoba Hydro	No	<p>Manitoba Hydro has the following comments:</p> <ol style="list-style-type: none"> <li>1) The intention of the NERC SDT in revising these standards is not clear.</li> </ol>

Organization	Yes or No	Question 1 Comment
		<p>While the Technical Justification document states that the SDT intended to focus on a Generator Owner’s radial interconnection facilities, the scope of the revised standard (s) is not confined to such facilities. The very broadly defined term “Facility” is used. Moreover, the Technical Justification document’s reference to the FERC decision in Cedar Creek as a basis for the revision of additional standards is confusing, since that decision did not specifically address the issue of radial facilities and supported NERC’s registration of GOs as TOs.</p> <p>2) If the drafting team intends to limit the scope of FAC-001-1 to GO owned radial generator interconnection facilities that are not deemed BES transmission and therefore would not require the registration of the GO as a TO, Manitoba Hydro disagrees with the proposed changes to FAC-001-1 as Generator Owners may not have the models or expertise to perform interconnection studies to determine if there is an impact on the Transmission Network. This concern is echoed in the technical justification document provided by NERC: ‘the SDT acknowledges that the Generator Owner may not, at the time it agrees or is compelled to allow a third part to interconnect, have the necessary expertise to conduct the required interconnect studies to meet this standard... the Generator Owner will have to acquire such expertise. How the Generator Owner chooses to do so is not for the SDT to determine.’ Although it may not be for the SDT to determine how a GO obtains technical expertise, ensuring that such expertise is acquired before a GO conducts the required interconnection studies should be a concern to NERC as this directly affects the reliability of the BES. As a result, all interconnection requests should be implemented by the TO providing the GO with connection to the BES regardless if the interconnection point is within a Generation Owner facility or End-User facility as the TO is in the best position to set unbiased connection requirements to ensure the reliability of the BES is maintained. If the scope of FAC-001-1 also applies to GO owned BES transmission facilities, Manitoba</p>

Organization	Yes or No	Question 1 Comment
		<p>Hydro strongly believes that the Compliance Registry should apply and the GOs should be required to register as a TO and abide by all applicable standards to that functional type. There is no need to change specific Reliability Standards to allow the Generator Owner to perform only selected TO functions. Reliability gaps would be better addressed if select GOs and GOPs registered as TOs and TOPs to ensure all reliability standards, including the protection standards, are met so the reliability of the BES is maintained. At this time, this would not lead to a large number of extra registrations since, as stated in the technical justification document, ‘interconnection requests for Generator Owner Facilities are still relatively rare.</p> <p>3) If the redline changes are implemented, GOs are removed from R4, thereby removing the obligation for GOs to maintain their connection requirements. If GOs are included in FAC-001, they should be held accountable to the same level as TOs and should be required to maintain their connection requirements. Requiring a GO to maintain connection requirements would be especially beneficial to the GO themselves. In the majority of instances, any GO that is an Applicable Entity for FAC-001 would initially be inexperienced in performing interconnection studies and would benefit from regular and frequent review of their connection requirements as experience and expertise are gained.</p> <p>4) The revision to FAC-001-1 R2 may be problematic, depending on what was intended. Under the revised requirement, the obligation to comply is dependent on the execution of an agreement to evaluate reliability impacts under FAC-002-1. However, FAC-002-1 does not clearly require the execution of an agreement by the Generator Owner. FAC-002-1 only requires the Generator Owner to “coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority”. Accordingly if a Generator Owner coordinates without executing an agreement to perform an assessment, compliance with FAC-001 R1 will not</p>

Organization	Yes or No	Question 1 Comment
		<p>be required.</p> <p>5) Manitoba Hydro would also like to point out that if the redline changes are implemented, it will greatly increase the complexity of coordination required under FAC-002-1 for Transmission Planners/Planning Authorities.</p>
<p><b>Response:</b> Thank you for your comment. The scope of this SDT is addressed in the <a href="#">SAR</a>. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP).</p> <p>The intent of the modifications to this standard is to address the requirements of the GO prior to the interconnection of the third party to their Facilities. The reliability gap the SDT intends to close is the need for the GO to develop Facility connection requirements prior to interconnection. The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.</p> <p>The SDT also refers the commenter to the document titled <a href="#">Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document</a>, which is posted on the project page. Specifically, see the last paragraph on page 4 and first two on page 5.</p>		
Tennessee Valley Authority	No	<p>Suggest that the overall structure of the standard be revised such that R1 - R3 are applicable to the Transmission Owner (consistent with existing FAC-001-0) and R4 (the new requirement) is applicable to the “applicable Generator Owner”. See further comments below. Support the proposed revisions to R1 and R4, but suggest R4 be returned to R3 (consistent with existing FAC-001-0).R3 in the balloted standard should be returned to R2 (consistent with existing FAC-001-0) and only be applicable to the Transmission Owner. R3.1 (or R2.1 if moved back) should be “fixed”, but it may be beyond this SDT’s charge. The use of “above” in the FAC-001-0 standard, or the proposed reference to “Requirements R1 or R2” in the proposed standard do not make sense in combination with the colon used at the end of the requirement. Suggest that R3.1 (or 2.1 if moved back) be revised as written below and all sub-requirements of R3.1 be elevated (R3.1.1 becomes R3.2, R3.1.2 becomes R3.3, etc.).”R3.1 Performance</p>

Organization	Yes or No	Question 1 Comment
		<p>requirements and/or planning criteria used to assess system impacts.” R2 in the balloted standard should become R4 and modified to incorporate the connection requirements contained in R3 that can more reasonably be expected of an “applicable Generator Owner”. For instance, an “applicable Generator Owner” might simply have a connection requirement for a third party that addresses coordination of system impact studies with the appropriate Transmission Owner(s), in lieu of R3.1, R3.1.1, and R3.1.2. Suggest that R2 (or R4 if moved below existing FAC-001-0 requirements) be revised as written below.”R2 Each applicable Generator Owner that has agreed to allow a third party Facility owner (Generation Facility, Transmission Facility, or End-user Facility) to connect to the Transmission system through use of pre-existing applicable Generator Owner Facilities shall communicate it’s Facility connection requirements to the third party. The applicable Generator Owner Facility connection requirements shall address the following items: R2.1 Coordination of system impact studies with the Transmission Owner. R2.2 Voltage level and MW and MVAR capacity or demand at point of connection. R2.3 Breaker duty and surge protection. R2.4 System protection and coordination R2.5 Metering....” Etc.</p>
<p><b>Response:</b> Thank you for your comment. We gave the comment due consideration and agree that there are a number of ways to format the standard with this SDT’s revisions. However, the majority of stakeholders support the current format of the standard. No change made.</p>		
<p>Northeast Power Coordinating Council, Northeast Power Coordinating Council</p>	<p>No</p>	<p>The intent of the draft language in FAC-001-1 is to provide guidance for addressing the alleged reliability gap that exists between GO/GOPs that own/ operate transmission facilities but are not registered as TO/TOPs. The impact of the revised language will depend on the characterization of the generator lead after the “third party “ connects to the existing generator lead. IF the generator lead is owned by the TO utility after the third party connection : The proposed DRAFT FAC-001 language suggests that within 45 days of a 3rd party having an executed Agreement to evaluate the reliability</p>

Organization	Yes or No	Question 1 Comment
		<p>impact of interconnecting, the existing generator needs to document and publish facility connection requirements. The proposed language suggests that a third party can commandeer existing generators leads and interconnect. A reclassification would be required because “third party” power would flow through the downstream portions of the existing leads. This introduces significant challenges for defining ownership / transfer of installed assets as well as real property, easements, operational jurisdiction, O&amp;M cost responsibility, etc. The FERC approved pro-forma Attachment X Interconnection Agreement clearly states that the project Developer must meet all Applicable Reliability Standards which means that all requirements and guidelines of the Applicable Reliability Councils, and the Transmission District to which the Developer’s Large Generating Facility is directly interconnected. As an example, to accommodate this NERC proposal, the FERC approved NYISO pro-forma tariff would need to be revised to allow this “third party” use. The pro-forma interconnection tariff also states that the Developer must provide updated project information prior to the Facilities Study. The Facilities Study might not be made until several years after the Interconnection Request /Feasibility Study is made (“executed Agreement to evaluate the reliability impact of interconnecting” in this proposed draft is akin to the Interconnection Request/Feasibility Study). Placing the requirement to have the existing Generator Owner publish reliability requirements for a potential “third party user”, without the generator having any knowledge of the potential reliability outcomes or asset transfer / ownership issues is not a reasonable expectation. The interconnection of a third party to an existing generator lead would force existing generators to revise their Interconnection Agreements with FERC. The “third party”, would at a minimum, need to comply with the existing Generators reliability obligations as specified in the Interconnection Agreement. IF the third party connects to the GO owned generator lead, the GO will be considered a TO: A TO would not be involved, other than review</p>

Organization	Yes or No	Question 1 Comment
		<p>of the SRIS and Facilities reports. The difficult thing for an existing GO would be to prepare, 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, a document listing the requirements. To allow for the above possibilities, the language for applicability of FAC-001 to GO’s or GOP’s, should be :”Each applicable Generator Owner shall, at least 60 days prior to execution of a Facilities / Class Year Study 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 Transmission System, document and publish its Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, sub regional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.”</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees with many of the comments (as indicated in the accompanying resource document titled <a href="#">Technical Justification: FAC-001-1</a>), especially those concerning the complexities of this process. The majority of stakeholders and the SDT support 45 days as a sufficient time frame because in many cases, the GO would simply need to adopt (document and publish) the facility connection requirements of its TO. No change made.</p>		
<p>Consolidated Edison Co. of NY, Inc.</p>	<p>No</p>	<p>The language for FAC-001 Requirement R2 should be:”This requirement shall apply to each applicable Generator Owner. Generator Owner filings must be made at least 60 days in advance of execution of the final interconnection study agreement in the Planning Coordinator’s or Transmission Planner’s study process.Each applicable Generation Owner must publish its Facility connection requirements to ensure compliance with NERC Reliability Standards and applicable Regional Entity, sub regional, Power Pool, and individual Transmission Owner planning criteria and Facility connection requirements.The evaluation of the reliability impact(s) of interconnecting a third party Facility to the Generator Owner’s existing Facility utilized for interconnection to the Transmission System must be</p>

Organization	Yes or No	Question 1 Comment
		documented.”
<p><b>Response:</b> Thank you for your comment. The SDT agrees with many of the comments (as indicated in the accompanying resource document titled <a href="#">Technical Justification: FAC-001-1</a>), especially those concerning the complexities of this process. The majority of stakeholders and the SDT support 45 days as a sufficient time frame because in many cases, the GO would simply need to adopt (document and publish) the facility connection requirements of its TO. No change made.</p>		
<p>Ingleside Cogeneration LP (Occidental Chemical)</p>	<p>No</p>	<p>Unfortunately, the vital point of this requirement revolves around whether or not a Generator Owner is compelled externally to allow access to their interconnection facilities. If the GO is driving the connection for financial or other business reasons, there is no reason they should not be responsible for developing AND maintaining a facility connection requirements document. Otherwise, when the local transmission system requirements change for any reason, there will be no entity responsible to ensure that the third party will conform as well. Conversely, if the GO should be compelled to allow access to a third party, it is the responsibility of the “compeller” to handle all the related reliability studies and documents. This may include the development of a CFR which separates reliability tasks between the GO and other entities - especially if a TSP registration is required. This ensures that the Regional Entity, PUC, RTO, or other regulator must budget dollars and resources directly related to their action - not cause them to be directed to a GO.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees with many of the comments (as indicated in the accompanying resource document titled <a href="#">Technical Justification: FAC-001-1</a>), especially those concerning the complexities of this process. However, the issues you raise are beyond the scope of the SDT and its SAR. No change made.</p>		
<p>PSEG</p>	<p>No</p>	<p>We revised this partial sentence to the following: “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 Transmission Facility that is used for connection</p>

Organization	Yes or No	Question 1 Comment
		<p>to the interconnected Transmission systems (under FAC-002-1), ..."- The phrase "Generator Owner's existing Facility that is used to interconnect to the Transmission System" was changed to "Generator Owner's existing Transmission Facility that is used for connection to the interconnected Transmission systems." - "Transmission" was added before Facility to exclude connections elsewhere; "Transmission System" was changed to "Transmission systems" because while "Transmission" and "System" are defined in the NERC Glossary, "System" means "A combination of generation, transmission, and distribution components." "Transmission systems" do not have generation or distribution components, so a lower case "system" is warranted. - In addition, the suggested phrase "interconnected Transmission systems" (plural "systems") uses identical language from FAC-002-1, except that we capitalized "Transmission.</p>
<p><b>Response:</b> Thank you for your comment. The SDT has addressed the proposed change to applicability according to your comments. The applicability section now reads: "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.</p> <p>The SDT has been informed that in some areas (like Texas), GOs, by statute, can't own Transmission. It was also brought to the SDT's attention that in most cases, the Facility in question is referred to as the Interconnection Facility in documents filed by the GO with FERC. Therefore, the SDT intentionally modified language so that a Facility owned by a generation entity did not contain the term "Transmission."</p>		
Seattle City Light	Affirmative	Key points are that (1) an executed agreement is required before evaluations of impacts are necessary and (2) this only applies when a third party is connecting to the generating interconnection line.
<p><b>Response:</b> Thank you for your comment.</p>		
Electric Power Supply Association	Yes	All TO requirements for FAC-001-1 would apply if and when GO executes an Agreement to evaluate the reliability impact of interconnecting a third

Organization	Yes or No	Question 1 Comment
		<p>party Facility to its existing generation interconnection Facility. The execution of the agreement is necessary to comply with FAC-002-1 and start the compliance clock with the applicable regulatory authority. Thus as the Project 2010-07 Standard Drafting Team (SDT) in its technical justification has stated, “If, and only if, the existing owner of a generator interconnection Facility has an executed Agreement to evaluate the reliability impact of interconnecting a third party Facility to its existing generation Facility” then FAC-001-1 should apply. EPSA concurs with SDT’s conclusion. The SDT has examined the issue regarding if future requests for transmission service on the interconnection Facility and in doing so acknowledged that when that Facility adopted open access and was providing transmission service it would necessitate re-evaluation of the need for the Facility to be maintained in accordance with FAC-001-1, Requirements 2 and 4. This service would indeed prompt the necessary agreement the SDT contemplates in its technical justification of FAC-001-1. EPSA believes this serves as the necessary trigger for evaluation of Requirements 2 and 4 under FAC-001-1 for GOs.</p>
<p><b>Response:</b> Thank you for your comment.</p>		
<p>American Wind Energy Association</p>	<p>Yes</p>	<p>AWEA appreciates that this standard specifies that it has limited applicability. For instance, only those generators that have an executed agreement with a third party wishing to interconnect must document and publish Facility connection requirements. We believe the proposed 45-day time window is a minimum for GO/GOP owners of generator lead lines to provide this documentation following execution of such an agreement. Anything less than 45 days could result in a burdensome and hard to meet deadline for GO/GOP staff. However, AWEA believes that extending this time window for publishing Facility connection requirements to 90 days after an executed agreement would be beneficial. We believe this will allow the GO/GOP owners of generator leads more time to coordinate with their</p>

Organization	Yes or No	Question 1 Comment
		interconnecting Transmission Providers and will result in more reliable and coordinated connection requirements for the generator lead.
<p><b>Response:</b> Thank you for your comment. The majority of stakeholders and the SDT support 45 days as a sufficient time frame because in many cases, the GO would simply need to adopt (document and publish) the facility connection requirements of its TO. No change made.</p>		
SERC OC Standards Review Group	Yes	Please verify within the applicability section (4.2.1) you intended to use the word “within” rather than some other wording.
<p><b>Response:</b> Thank you for your comment. The SDT intended it to read “Generator Owner <b>with</b> 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 Transmission System.” This change has been made.</p>		
RES Americas Development	Yes	RES Americas and AWEA appreciate that this standard specifies that it has limited applicability. For instance, only those generators that have an executed agreement with a third party wishing to interconnect must document and publish Facility connection requirements. We believe the proposed 45-day time window is a minimum for GO/GOP owners of generator lead lines to provide this documentation following execution of such an agreement. Anything less than 45 days could result in a burdensome and hard to meet deadline for GO/GOP staff. However, we believes that extending this time window for publishing Facility connection requirements to 90 days after an executed agreement would be beneficial. We believe this will allow the GO/GOP owners of generator leads more time to coordinate with their interconnecting Transmission Providers and will result in more reliable and coordinated connection requirements for the generator lead.
<p><b>Response:</b> Thank you for your comment. The majority of stakeholders and the SDT support 45 days as a sufficient time frame because in many cases, the GO would simply need to adopt (document and publish) the facility connection requirements of its TO</p>		

Organization	Yes or No	Question 1 Comment
No change made.		
ACES Power Marketing Standards Collaborators	Yes	We largely agree with the changes the drafting team made but believe some additional changes are necessary. In section 4.2.1 of the Applicability Section, “within” should be “with”. Because NERC’s Glossary of Terms establishes that an Agreement can be verbal and not enforceable by law, section 4.2.1 should be further modified to clarify that it is a legally enforceable and fully executed Agreement. The language in R3 in parenthesis after Generation Owner should be modified to “once required by Requirement R2”. This makes it clearer that R3 does not apply until the GO has an executed Agreement to evaluate a request by a third part to interconnect.
<p><b>Response:</b> Thank you for your comment. We agree that “within” should be “with”. The SDT chose not to adopt the second recommendation as the requirement already contains the term “executed.” The SDT also chose not to adopt the third recommendation as the requirement already contains the parenthetical (in accordance with Requirement R2) which we feel is synonymous with the comment.</p>		
Southwest Power Pool Regional Entity	Yes	
MRO NSRF	Yes	
SERC Planning Standards Subcommittee	Yes	
Florida Municipal Power Agency	Yes	
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	

Organization	Yes or No	Question 1 Comment
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Exelon	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
Ameren	Yes	
American Transmission Company	Yes	
South Carolina Electric and Gas	Yes	
Sempra Generation	Yes	
Xcel Energy	Yes	
Cowlitz County PUD	Yes	
Constellation Power Source Generation	Yes	
ReliabilityFirst		
Entergy Services		

Organization	Yes or No	Question 1 Comment
Western Electricity Coordinating Council		
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		

**2. Do you support the one year compliance timeframe for Generator Owners as proposed in the Implementation Plan for FAC-001-1?**

**Summary Consideration:**

The vast majority of commenters supported the one year compliance time frame in the Implementation Plan. A few commenters were concerned with this time frame and associated enforcement, in part based on similar issues addressed in recent CANs. The SDT did its best to clarify its intent as follows:

The SDT’s intent is that the mandatory date (the date upon which the GO must be compliant with applicable requirements and measures) be the first calendar day of the first calendar quarter one year after FAC-001-1’s approval. The SDT believes one year is sufficient time for the GO to become compliant where it has one or more in-place (which we interpret as synonymous with legacy or grandfathered) executed Agreement(s). If an Agreement is executed after the mandatory date, then the GO has 45 days to “document and publish its Facility connection requirements” (R2) and those requirements shall address items under R3.

No changes were made to the Implementation Plan.

Organization	Yes or No	Question 2 Comment
Ingleside Cogeneration LP (Occidental Chemical)	No	Based upon similar issues addressed in Compliance Application Notices (CANs), the drafting team needs to specify how the requirements apply to an in-place “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 Transmission System.” In the view of Ingleside Cogeneration LP, if the Agreement takes effect even one day before FAC-001-1 does, requirements R2 and R3 do not apply. Without this clarification, it is possible that NERC’s Compliance team will apply the requirements retroactively - with minimum industry input.
<p><b>Response:</b> Thank you for your comment. The SDT’s intent is that the mandatory date (the date upon which the GO must be compliant with applicable requirements and measures) be the first calendar day of the first calendar quarter <u>one year after its approval</u>. The SDT believes one year is sufficient time for the GO to become compliant where it has one or more in-place (which we interpret as synonymous with legacy or grandfathered) executed Agreement(s). If an Agreement is executed after the mandatory date, then the GO has 45 days to “document and publish its Facility connection requirements” (R2) and those requirements shall</p>		

Organization	Yes or No	Question 2 Comment
address items under R3.		
Southwest Power Pool Regional Entity	No	No action is required unless a GO has an executed third-party agreement. If a GO has an agreement, the standard already includes a 45-day timeframe for the GO to document and publish its facility connection requirements.
<p><b>Response:</b> Thank you for your comment. The SDT’s intent is that the mandatory date (the date upon which the GO must be compliant with applicable requirements and measures) be the first calendar day of the first calendar quarter <u>one year after its approval</u>. The SDT believes one year is sufficient time for the GO to become compliant where it has one or more in-place (which we interpret as synonymous with legacy or grandfathered) executed Agreement(s). If an Agreement is executed after the mandatory date, then the GO has 45 days to “document and publish its Facility connection requirements” (R2) and those requirements shall address items under R3.</p>		
Southern Company	No	See our response to Question 9.
<p><b>Response:</b> See the SDT’s response to Question 9.</p>		
Manitoba Hydro	No	See question 1 comments.
<p><b>Response:</b> See SDT’s response to Question 1.</p>		
Cowlitz County PUD	Yes	Cowlitz PUD (District) registered as a Transmission Owner shortly before FAC-001-0 became effective and was forced to file a Mitigation Plan in order to facilitate compliance. The District successfully completed compliance implementation and documentation in eight months. The proposed one year compliance timeframe is sufficient.
<p><b>Response:</b> Thank you for your comment and support.</p>		
Seattle City Light	Yes	The proposed changes for FAC-001-1 state a 45 day period to complete the evaluation. Not sure what the question is referring to regarding “ 1 year “?

Organization	Yes or No	Question 2 Comment
<p><b>Response:</b> Thank you for your comment. The SDT’s intent is that the mandatory date (the date upon which the GO must be compliant with applicable requirements and measures) be the first calendar day of the first calendar quarter <u>one year after its approval</u>. The SDT believes one year is sufficient time for the GO to become compliant where it has one or more in-place (which we interpret as synonymous with legacy or grandfathered) executed Agreement(s). If an Agreement is executed after the mandatory date, then the GO has 45 days to “document and publish its Facility connection requirements” (R2) and those requirements shall address items under R3.</p>		
<p>American Wind Energy Association / RES Americas Development</p>	<p>Yes</p>	<p>Yes, since there is no exigent reason why this standard needs to be put in place at once, we support the one-year compliance timeframe. We believe that it will allow generators a reasonable time to comply with the requirement.</p>
<p><b>Response:</b> Thank you for your comment and support.</p>		
<p>SERC OC Standards Review Group</p>	<p>Yes</p>	
<p>Southwest Power Pool Standards Development Team</p>	<p>Yes</p>	
<p>Northeast Power Coordinating Council, Northeast Power Coordinating Council</p>	<p>Yes</p>	
<p>MRO NSRF</p>	<p>Yes</p>	
<p>SERC Planning Standards Subcommittee</p>	<p>Yes</p>	
<p>Florida Municipal Power Agency</p>	<p>Yes</p>	

Organization	Yes or No	Question 2 Comment
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	
ACES Power Marketing Standards Collaborators	Yes	
Electric Power Supply Association	Yes	
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Exelon	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
Ameren	Yes	
PSEG	Yes	
American Transmission Company	Yes	

Organization	Yes or No	Question 2 Comment
South Carolina Electric and Gas	Yes	
Sempra Generation	Yes	
Xcel Energy	Yes	
Constellation Power Source Generation	Yes	
Western Electricity Coordinating Council		
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		
Consolidated Edison Co. of NY, Inc.		
Entergy Services		
ReliabilityFirst		
Texas Reliability Entity		

3. With respect to FAC-003, many commenters focused on the half-mile qualifier in FAC-003. Some commenters found the half-mile length too short, others found it too long, and still others found the choice among the starting points of the switchyard, generating station, or generating substation to be confusing. The drafting team attempted to address all of these concerns with its latest proposed standard changes. The qualifier now reads: “...that extends greater than one mile beyond the fenced area of the generating station switchyard...” We believe that the one mile length is a reasonable approximation of line of sight, and that using a fixed starting point (at the fenced area of the generation station switchyard) eliminates confusion and any discretion on the part of a Generator Owner or an auditor. Finally, we maintain that it is appropriate to include this qualifier for Generator Owners because there is a very low risk from vegetation within the line of sight, and thus the formal steps in this standard are not necessary to ensure reliability of these lines.

Taking into consideration that only one of the versions of FAC-003 will actually be implemented, a decision that will be made as Project 2007-07—Vegetation Management moves forward, do you support the proposed redline changes to FAC-003-X and FAC-003-3?

#### Summary Consideration:

The SDT thanks all stakeholders for their comments and their over 85% approval for the FAC-003-X and FAC-003-3 changes posted for ballot in November 2011. Based on stakeholder feedback, the SDT has made the following changes:

- Added a clarifying reference to line of sight in the GO exemption in section 4.3.1.
- Corrected a typo in 4.3.1.2 of FAC-003-3.
- Changed “RE” to “Regional Entity” in 4.3.1 of FAC-003-X.

As it discusses in the document titled “[Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface](#),” the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.

To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight. 4.3.1 of FAC-003-X now reads:

Generator Owner that owns an overhead transmission line(s) that (1) extends greater than one mile or 1.609 kilometers beyond the fenced area of the generating station switchyard to the point of interconnection with a Transmission Owner's Facility or (2) does not have a clear line of sight from the generating station switchyard fence to the point of interconnection with a Transmission Owner's Facility and is operated at 200 kV and above and any lower voltage lines designated by the Regional Entity as critical to the reliability of the electric system in the region.

4.3.1 of FAC-003-3 now reads:

Overhead transmission lines that (1) extend greater than one mile or 1.609 kilometers beyond the fenced area of the generating station switchyard to the point of interconnection with a Transmission Owner's Facility or (2) do not have a clear line of sight from the generating station switchyard fence to the point of interconnection with a Transmission Owner's Facility and are: Operated at 200kV or higher; or operated below 200kV identified as an element of an IROL under NERC Standard FAC-014 by the Planning Coordinator. Operated below 200 kV identified as an element of a Major WECC Transfer Path in the Bulk Electric System by WECC.

Both references to clear line of sight include a footnote stating: "Clear line of sight' means the distance that can be seen by the average person without special instrumentation (e.g., binoculars, telescope, spyglasses, etc.) on a clear day."

~~To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: "Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are..."~~

With this reference, the SDT simply seeks to clarify the exception language based on the intent that has been agreed upon by the stakeholder body. In its [Consideration of Comments report](#) from the last formal comment period, which ended on July 17, 2011, the SDT explained "We believe that the one mile length is a reasonable approximation of line of sight, and that using a fixed starting point (at the fenced area of the generation station switchyard) eliminates confusion and any discretion on the part of a Generator Owner or an auditor." With the addition of an explicit line of sight reference here, the SDT believes it has clarified its original intent and appropriately considered all comments submitted.

Some stakeholders suggested changes that should have been submitted when Project 2007-07 was revising FAC-003-2, because these suggestions dealt with the standard as a whole rather than the changes made by this SDT to ensure that GOs are included in the standard's applicability.

One commenter remains concerned about the scope of the SDT. The SDT reminded this commenter that its scope is addressed in the SAR and that its intent is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT also refers the commenter to the document titled Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document. Specifically, see the last paragraph on page 4 and first two on page 5.

Organization	Yes or No	Question 3 Comment
Ameren Services	Negative	<p>(a) There is no technical basis for the one mile length exemption. In fact, one could argue that a very short line, 300 feet in length, that experienced a fault from a tree at "the end of the circuit", i.e near the switchyard fence, would have much more of an impact on the BES because the fault would be limited by much less impedance.</p> <p>(b) It is also unclear in this version if a GO that owned one line that was 1.2 miles in length would have to comply for the entire length of said line, or just 0.2 miles of said line. If the GO is responsible for 1.2 miles, then that argues that the first mile is important and consequently there is no basis for ignoring the first mile on other lines. If the GO is only responsible for 0.2 miles, what is the technical basis to ignore a mile? And would it be the first mile from the switchyard that is ignored, or is the middle mile, or the last mile where it connects to the TO? Or could the GO decide? Or could the GO pick sections of the line that amount to a mile that they can ignore? This seems like something that should be addressed for compliance.</p> <p>(c) The 2 year compliance time line is far too long. There is significant industry evidence that was developed in the drafting of Version 2 that supports a one year compliance time-line for new lines. This is evidenced in Version 2. Thus there is no basis for the 2 years</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled "<u><a href="#">Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface</a></u>," the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p>		

Organization	Yes or No	Question 3 Comment
<p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>;</p> <p>With respect to your second comment, the SDT intended for the length qualifier to be just that; if the overhead portion of a Facility exceeds the distance, <u>the entire Facility</u> is subject to the requirements of the standard.</p> <p>The SDT chose the time in the implementation plan based upon reasons it documented in the <a href="#">accompanying implementation plan</a> and also based upon comments of stakeholders.</p>		
Wisconsin Public Service Corp Electric Cooperative	Negative	R1.2 refers to an encroachment due to a fall in. This is confusing because according to the dictionary “Webster’s II” encroachment reads: “to intrude gradually”, and a ‘fall in’ is not usually gradual.
<p><b>Response:</b> Thank you for your comment. This is outside the scope of the <a href="#">SAR</a>. The SDT reviewed comments submitted as part of the <a href="#">Project 2007-07</a> effort and did not find this comment had been submitted.</p>		
Wisconsin Public Service Corp.	Negative	The concern with the proposed wording is that many generating station may not have a “generating station switchyard” as implied by the proposed wording. Often the generator leads (e.g. 20 kV) will exit the generator and connect to transformers located in transformer bays directly adjacent to the plant. From the transformers the now greater than 200 kV lines will be routed to the point of interconnect or a generating unit switchyard, possibly miles or yards away. By no one’s definitions would the transformer bays adjacent to the plant be considered a switchyard. The plant fence may be yards or hundreds of yards from the bays and on a multiple unit site, there may be a site fence or boundary, which could be comprise of fences, security patrols, or other barriers yards or miles from the transformer but enveloping the switchyard. The valid assumption made by the drafting team is that transmission lines within an area tightly controlled by the generator operator poses very little risk to the BES as a result of vegetation contact. This assumption is based on the valid observation that these areas are routinely occupied and observed by station

Organization	Yes or No	Question 3 Comment
		<p>personnel and as a result unexpected and unacceptable vegetation growth is highly unlikely because it is controlled by routine maintenance. It also correctly assumes that some distance past the controlled area is acceptable since this area would also be under near continuous observation. The problem comes in defining both a tightly controlled area and a line of site. We suggest the following: Controlled Area: A perimeter around a power plant, power plants, or switchyard which is prevents intrusion by the use of physical barriers, observation, or electronic monitoring and is routinely occupied such that unexpected and unacceptable vegetation growth would be observed and correct as a matter of routine maintenance. Line of Sight: A two kilometer distance from the controlled area perimeter.</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>.</p>		
<p>Florida Reliability Coordinating Council</p>	<p>Negative</p>	<p>There is no technical justification for excluding 1 mile beyond the fence in the applicability of generators.</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from</del></p>		

Organization	Yes or No	Question 3 Comment
the switchyard fence to the point of interconnection and are...".		
Southern Company	No	<p>â€¢,All of these comments pertain to FAC-003-3:</p> <ol style="list-style-type: none"> <li>1) We suggest referring to the Implementation Plan in the Effective Date sub-section of Section A of the standard rather than repeating the content of the Implementation Plan in the standard. There exists unnecessary duplication with including the information in both places.</li> <li>2) We suggest simplifying the purpose statement to more succinctly say the intent, for example: "To maintain a reliable transmission system by managing vegetation located on transmission rights of way to minimize vegetation encroachments and thereby minimize the risk of vegetation related outages". If this change is not acceptable, at least change the phrase "preventing the risk" to "minimizing the risk".</li> <li>3) We feel that the Enforcement paragraphs between 4.3.1.3 and 5.0 seem to be out of place. Those paragraphs don't belong in this location - consider moving them to Section C. Compliance. The fourth paragraph belongs in the background section.</li> <li>4) We suggest moving the background section to Section F. "Associated Documents". It gets in the way of getting to the requirements of the standard.</li> <li>5) We suggest moving Table 2 of the "Guideline and Technical Basis" document into R1, since it seems to be the only part of the document that is enforceable. Further we suggest that the Guideline and Technical Basis document be removed from the standard. The inclusion of this document in the standard makes the standard unwieldy.</li> <li>6) We suggest reordering the words in R1 to more clearly state the requirement. Please consider this rephrasing: "For lines which are either an element of an IROL or an element of a Major WECC Transfer Path, each applicable TO and applicable GO shall manage vegetation to prevent encroachments into the MVCD of its applicable line(s) when operating within their Rating during all Rated Electrical Operating Conditions of the types shown below:..." (remainder is unchanged).</li> </ol>

Organization	Yes or No	Question 3 Comment
		<p>7) We suggest reordering the words of R2 to more clearly state the requirement. Please consider the this rephrasing: "For lines which are neither an element of an IROL nor an element of a Major WECC Transfer Path, each applicable TO and applicable GO shall manage vegetation to prevent encroachments into the MVCD of its applicable line(s) when operating within its Rating and during all Rated Electrical Operating Conditions of the types listed below:..." (remainder is unchanged).</p> <p>8) On Page 11 of the posted clean draft standard, is the reference to the previous footnote 2 correct? We recommend eliminating footnotes where possible to minimize redirections.</p> <p>9) The Rationale text-box on page 13 of the clean version of FAC-003-3 overlaps some of the text of footnote #6.   â€¢,â€¢,â€¢,</p>
<p><b>Response:</b> Thank you for your comment.</p> <p>With respect to your suggestion regarding the implementation plan, the SDT simply followed the NERC-mandated document guidelines. Making the change you suggest would deviate from that process and thus the SDT has not made it.</p> <p>With respect to comments 2-8, any standard changes that go beyond making a standard applicable to a GO or GOP are beyond the scope of this SDT. Any redline changes the SDT has made within standards were made to clarify or qualify the GO or GOP applicability. These comments would have been more appropriate to make during the comment period for Project 2007-07 Vegetation Management, the project that revised the version of FAC-003 from which this SDT is working.</p> <p>We have modified the rationale box on page 13 so that it does not overlap with the text of footnote 6.</p>		
Dominion	No	<p>Dominion suggests in FAC-003-X; 4.3.1. Regional Entity be changed to RE as listed in 4.2.1 for consistency. Also Regional Entity is used throughout the rest of the document, suggest using RE for consistency overall. Dominion suggests in FAC-003-3; 4.3.1. adding station to the following " Overhead transmission lines that extend greater than one mile or 1.609 kilometers beyond the fenced area of the generation station switchyard and are" to show consistency as it is written in FAC-003-X 4.3.1. Further, Dominion is concerned that the technical justification characterized the exclusion (i.e., one mile or 1.609 kilometers beyond the fenced area of the</p>

Organization	Yes or No	Question 3 Comment
		<p>generating station switchyard) as “approximate line of sign [sic] from a fixed point” and notes that this line of sight may be limited by local terrain. Where line of sight of the radial corridor is limited on a clear day due to terrain, the one mile exemption must be limited in distance to no more than the line of sight on a clear day beyond the fenced area.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees with your comment about the Regional Entity, but will instead use Regional Entity throughout.</p> <p>Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>.</p>		
Exelon	No	<p>FAC-003 - Exelon supports the one mile length qualifier, but feels that additional clarification is needed to determine the points of demarcation. There are too many differing physical configurations to use a “fence line” as a determination of applicability. Suggest that the tie line length be defined as “from the Generator Step up Transformer GSU to the point of interconnection between the GO and TO owned equipment.” Also suggest that the standard define what constitutes a generation station switchyard.</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p>		

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<p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>.</p>		
<p>Ingleside Cogeneration LP (Occidental Chemical)</p>	<p>No</p>	<p>Ingleside Cogeneration LP is very concerned that the attempt to develop “bright-line” criteria to assign applicability to either version of FAC-003 is misplaced. As seen with NERC’s recent proposed directive related to Generator-Transmission interconnections, those thresholds can be arbitrarily reduced based upon regulators aversion to risk - not scientific evidence. (As it stands today, NERC has proposed any interconnection facility operating at 100 kV or higher and greater than 3 spans in length be applicable - which is even stricter than the TO thresholds in FAC-003.) This would suggest that a reliability assessment consistent with the TPL standards must be the determining factor. If the Planning Coordinator or Transmission Planner can show that the Generator-Transmission interconnection could contribute to a violation of an SOL or IROL, then a vegetation management program may be in order. Furthermore, there needs to be some level of common sense applied if a GO-TO interconnection is located in an area where vegetation clearance is never an issue. A one-size-fits-all requirement based upon vegetation growth in the sub-tropics, should not automatically apply in the desert. In our view, every dollar spent to control vegetation in an arid climate is one less dollar available to purchase advanced telemetry, AGC systems, and other items which have a far greater impact on reliability.</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend</del></p>		

Organization	Yes or No	Question 3 Comment
<p><del>greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...".</del></p> <p>The SDT also took into consideration the stakeholder comments submitted and believes this exemption adequately addresses the reliability impact for a majority of the Facilities, while balancing the efforts necessary to support the standard from all entities.</p>		
Manitoba Hydro	No	<p>Manitoba Hydro does not support the changes being proposed in this project. If a Generator Owner is required to register as a TO, all the Requirements applicable to a TO should apply. There is no need to change specific Reliability Standards to allow the Generator Owner to perform only selected TO functions.</p>
<p><b>Response:</b> Thank you for your comment. The scope of this SDT is addressed in the <a href="#">SAR</a>. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT also refers the commenter to the document titled <a href="#">Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document</a>. Specifically, see the last paragraph on page 4 and first two on page 5.</p>		
Northeast Power Coordinating Council, Northeast Power Coordinating Council	No	<p>Suggest in FAC-003-X; 4.3.1. that Regional Entity be changed to RE as listed in 4.2.1 for consistency. Also Regional Entity is used throughout the rest of the document, suggest using RE for consistency. In FAC-003-3; 4.3.1. add station to the following: “Overhead transmission lines that extend greater than one mile or 1.609 kilometers beyond the fenced area of the generation station switchyard and are” to show consistency as it is written in FAC-003-X 4.3.1. The technical justification characterized the exclusion (i.e., one mile or 1.609 kilometers beyond the fenced area of the generating station switchyard) as “approximate line of sight [sic] from a fixed point” and noted that this line of sight may be limited by local terrain. Where line of sight of the radial corridor is limited on a clear day due to terrain, the one mile exemption must be limited in distance to no more than the line of sight on a clear day beyond the fenced area.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees with your comment about the Regional Entity, but will instead use Regional Entity throughout.</p>		

Organization	Yes or No	Question 3 Comment
<p>Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>.</p>		
MRO NSRF	No	<p>The NSRF agrees with the drafting committees desire to eliminate arbitrary and capricious behavior of auditors and industry staff by precisely defining the point at which measurement starts for the length of transmission line. The concern the NSRF has with the proposed wording is that many generating station may not have a “generating station switchyard” as implied by the proposed wording. Often the generator leads (e.g. 20 kV) will exit the generator and connect to transformers located in transformer bays directly adjacent to the plant. From the transformers the now greater than 200 kV lines will be routed to the point of interconnect or a generating unit switchyard, possibly miles or yards away. By no one’s definitions would the transformer bays adjacent to the plant be considered a switchyard. The plant fence may be yards or hundreds of yards from the bays and on a multiple unit site, there may be a site fence or boundary, which could be comprise of fences, security patrols, or other barriers yards or miles from the transformer but enveloping the switchyard. The valid assumption made by the drafting team is that transmission lines within an area tightly controlled by the generator operator poses very little risk to the BES as a result of vegetation contact. This assumption is based on the valid observation that these areas are routinely occupied and observed by station personnel and as a result unexpected and unacceptable vegetation growth is highly unlikely because it is controlled by routine maintenance. It also correctly assumes that some distance past the controlled area is acceptable since this area would also be under near continuous observation. The problem comes in defining both a tightly</p>

Organization	Yes or No	Question 3 Comment
		<p>controlled area and a line of site. We suggest the following: Controlled Area: A perimeter around a power plant, power plants, or switchyard which is prevents intrusion by the use of physical barriers, observation, or electronic monitoring and is routinely occupied such that unexpected and unacceptable vegetation growth would be observed and correct as a matter of routine maintenance. Line of Sight: NSRF recommends a two kilometer distance from the controlled area perimeter. Our assessment is that an individual of average height would have a line of site of approximately 4 Kilometers. Therefore, we recommended a distance of 2 kilometers from the Controlled Area of the plant to provide margin. The revised applicability statement would read as follows: “Generator Owner that owns an overhead transmission line(s) that extends greater than 2.0 kilometers beyond the Controlled Area of the generating station up to the point of interconnection with a Transmission Owner’s Facility and is operated at 200 kV and above and any lower voltage lines designated by the Regional Entity as critical to the reliability of the electric system in the region. Furthermore we applaud the committee for using the metric system to identify the acceptable distance for this standard and urge it to remove all references to English units. We strongly suggest this drafting team and all future drafting team abandon the anachronistic English measurement system. This archaic system, based on the length of an average barley corn, should be abandon in all scientific and engineering endeavors.</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>;</p>		

Organization	Yes or No	Question 3 Comment
Southwest Power Pool Standards Development Team	No	There is a possibility of some conflict with the Bulk Electric System Definition. This should be consistent with the Transmission Owner requirements if the lead is determined part of the BES.
<p><b>Response:</b> Thank you for your comment. The SDT intended this standard to be applied to Facilities of GO and TO equally, with the exception of the distance exemption for a generator interconnection Facility. The SDT also notes that FAC-003-2 (approved by the NERC’s Board of Trustees on Nov. 3, 2011) does not rely upon the BES definition to determine the facility to which this standard applies (200 kV or higher, or IROL or WECC Transfer Path).</p>		
South Carolina Electric and Gas	No	There should be no qualifying exemption to FAC-003 for Generator Owners.
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>.</p>		
SERC Planning Standards Subcommittee	No	We believe there should be no exemption for Generator Owners.
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled <a href="#">“Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface,”</a> the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight</del></p>		

Organization	Yes or No	Question 3 Comment
<del>from the switchyard fence to the point of interconnection and are...".</del>		
PSEG	No	
Infigen Energy US	Affirmative	Infigen finds the DST supporting details regarding FAC-003-X to be appropriate. We support maintaining "reasonable and appropriate" risk prevention measures to minimize encroachment that could trigger vegetation-related outages.
<b>Response:</b> Thank you for your comment and support.		
Seattle City Light	Affirmative	Key points are the greater than one mile with clear statement of "...beyond the fenced area of the generating switchyard."
<b>Response:</b> Thank you for your comment and support.		
RES Americas Development / American Wind Energy Association	Yes	Applying the vegetation management requirements to only generator lead lines that extend more than "one mile beyond the fenced area of the generating station switchyard" strikes a reasonable balance among the many stakeholder positions expressed on this topic. We think that as this criterion recognizes that there is little need for a vegetation management plan for shorter lines, it should explicitly state that this is true for all such facilities with lines of that length or smaller.
<b>Response:</b> Thank you for your comment and support.		
Texas Reliability Entity	Yes	In the description of the "second effective date" in FAC-003-X there is an erroneous reference to "Requirement R3," which should be corrected to "Requirement R1."
<b>Response:</b> Thank you for your comment and support. This conforming change was made.		
Seattle City Light	Yes	Key points are the greater than one mile with clear statement of "...beyond the fenced area of the generating switchyard."

Organization	Yes or No	Question 3 Comment
<b>Response:</b> Thank you for your comment and support.		
ACES Power Marketing Standards Collaborators	Yes	We support the changes to FAC-003 suggested by the drafting team because we believe the drafting team has provided the best solution in face of a difficult problem. However, in general, we do not support registration of GOs and GOPs as TOs and TOPs or applicability of any TO/TOP requirements to the GO/GOP simply because they have a radial interconnection greater than one mile in length. While there may be some generators that own interconnecting facilities of significant length operated at a significant voltage that could impact BES reliability, we do not believe that the number of generating facilities that fit into that category is significantly large. When one considers that the majority of generators are still owned and operator by utilities that are also registered as a TO and TOP, there is only a minority subset of generators left that could be considered. NERC has the registration for this remaining set of generators and could use the data to evaluate how many of this remaining subset have interconnections owned by the generator that are substantial enough to affect reliability. It seems that NERC could determine the boundaries of this problem before registering anymore GOs and GOPs as TOs and TOPs or before applying additional requirements through this effort on the GOs and GOPs.
<b>Response:</b> Thank you for your comment and support.		
SERC OC Standards Review Group	Yes	
Southwest Power Pool Regional Entity	Yes	
Florida Municipal Power Agency	Yes	

Organization	Yes or No	Question 3 Comment
PPL NERC Registered Affiliates	Yes	
Electric Power Supply Association	Yes	
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
American Transmission Company	Yes	
Sempra Generation	Yes	
Entergy Services	Yes	
Xcel Energy	Yes	
Cowlitz County PUD	Yes	
Constellation Power Source Generation	Yes	

Organization	Yes or No	Question 3 Comment
Western Electricity Coordinating Council		
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		
Consolidated Edison Co. of NY, Inc.		
ReliabilityFirst		
Tennessee Valley Authority		

**4. Do you support compliance timeframe for Generator Owners as included and explained in the Implementation Plans for FAC-003-X?**

**Summary Consideration:**

The SDT thanks all stakeholders for their comments. The vast majority of stakeholders support the compliance timeframes as proposed and explained in the Implementation Plan for FAC-003-X.

One commenter found a typo in the effective dates section of FAC-003-X, where one section referenced R3 when it should have referenced R1. That has been corrected in both the standard and the Implementation Plan.

A few stakeholders thought that two years was too long for an Implementation Plan for this standard. The SDT reminded those commenters that the time frame was based on previous stakeholder comments and the fact that the Implementation Plan for Version 0 standards stated “the Version 0 Reliability Standards are generally a translation and clarification of existing operating policies and planning standards, entities that are in compliance with NERC policies and standards today are expected to be able to remain in compliance with the Version 0 Reliability Standards with their existing procedures, tools, and practices.” This process occurred over more than two years. It is therefore reasonable to assume that GOs, having never had to comply with a vegetation management standard, be afforded adequate time to do so.

Beyond the corrected typo, no changes were made.

Organization	Yes or No	Question 4 Comment
Ameren Services	Negative	The 2 year compliance time line is far too long. There is significant industry evidence that was developed in the drafting of Version 2 that supports a one year compliance time-line for new lines. This is evidenced in Version 2. Thus there is no basis for the 2 years.
<p><b>Response:</b> Thank you for your comment. The SDT choose the time in the implementation plan based upon comments of stakeholders and the fact that the implementation plan for <u>Version 0 standards</u> stated “the Version 0 Reliability Standards are generally a translation and clarification of existing operating policies and planning standards, entities that are in compliance with NERC policies</p>		

Organization	Yes or No	Question 4 Comment
<p>and standards today are expected to be able to remain in compliance with the Version 0 Reliability Standards with their existing procedures, tools, and practices.” This process occurred over more than two years. It is therefore reasonable to assume that GOs, having never had to comply with a vegetation management standard, be afforded adequate time to do so.</p>		
<p>Texas Reliability Entity</p>	<p>No</p>	<p>A compliance timeframe for the applicable GOs of two years is too long and the scenario used as a basis provides no timing specifics or details. Moreover, the 12 months for an existing transmission line operated at 200kV or higher which is newly acquired by an asset owner and which was not previously subject to this standard is arguably the same situation as an applicable GO but the applicable GO has an additional 12 months to come into compliance.</p>
<p><b>Response:</b> Thank you for your comment. The SDT choose the time in the implementation plan based upon comments of stakeholders and the fact that the implementation plan for <a href="#">Version 0 standards</a> stated “the Version 0 Reliability Standards are generally a translation and clarification of existing operating policies and planning standards, entities that are in compliance with NERC policies and standards today are expected to be able to remain in compliance with the Version 0 Reliability Standards with their existing procedures, tools, and practices.” This process occurred over more than two years. It is therefore reasonable to assume that GOs, having never had to comply with a vegetation management standard, be afforded adequate time to do so. The SDT does not believe that a TO’s acquisition of a new asset is the same as applying new requirements to a GO.</p>		
<p>Ingleside Cogeneration LP (Occidental Chemical)</p>	<p>No</p>	<p>Based upon similar issues addressed in Compliance Application Notices (CANs), the drafting team needs to specify when the first vegetation management inspection quarterly report, and any other requirement with an assigned interval in FAC-003-3 or FAC-003-X. Even if the decision is to adopt the same criteria proposed in CAN-0012, the industry is better served with a clear distinction made up front.</p>
<p><b>Response:</b> Thank you for your comment. This is a comment that is outside the scope of the SDT, and in fact deals with a larger body of standards than just FAC-003. No change made.</p>		
<p>PSEG</p>	<p>No</p>	<p>It’s no longer applicable.</p>
<p><b>Response:</b> Thank you for your comment. The SDT acknowledges that in November 2011, NERC’s Board of Trustees adopted FAC-003-2</p>		

Organization	Yes or No	Question 4 Comment
<p>– Transmission Vegetation Management (developed under Project 2007-07 Vegetation Management). Based on this approval, NERC staff will file FAC-003-2 with the applicable regulatory authorities. The Project 2010-07 SDT will move forward with ballots for both FAC-003-3 (proposed changes to the BOT-adopted FAC-003-2) and FAC-003-X (proposed changes to the FERC-approved FAC-003-1) with the intention of eventually only filing FAC-003-3. The SDT has elected to carry FAC-003-X through to ballot because if FAC-003-2 and FAC-003-3 are not approved by FERC, the SDT wants to be ready to file FAC-003-X to ensure that there is a functional entity responsible for managing vegetation on the piece of line commonly known as the generator interconnection Facility.</p> <p>Note that for its recirculation ballot, the SDT will be balloting <b>both</b> FAC-003-3 and FAC-003-X, but stakeholders should <b>not</b> vote as though they are choosing one or the other. As stated above, the SDT plans to present FAC-003-3 alone to NERC’s Board of Trustees, but it wants to have FAC-003-X ready to submit to the Board if, for some reason, neither FAC-003-2 nor FAC-003-3 are approved by FERC. Members of the ballot body should vote on the merits of each version of FAC-003 individually. <b>In other words, stakeholders who support adding GOs to the applicability of FAC-003 should vote in the affirmative for both FAC-003-3 and FAC-003-X.</b></p>		
Manitoba Hydro	No	See question 3 comments.
<p><b>Response:</b> See the SDT’s response to Question 3.</p>		
Southwest Power Pool Standards Development Team	No	The effective dates should be consistent with the original standard. If there is a reason for the extension we would like to know why.
<p><b>Response:</b> Thank you for your comment. The SDT choose the time in the implementation plan based upon comments of stakeholders and the fact that the implementation plan for <a href="#">Version 0 standards</a> stated “the Version 0 Reliability Standards are generally a translation and clarification of existing operating policies and planning standards, entities that are in compliance with NERC policies and standards today are expected to be able to remain in compliance with the Version 0 Reliability Standards with their existing procedures, tools, and practices.” This process occurred over more than two years. It is therefore reasonable to assume that GOs, having never had to comply with a vegetation management standard, be afforded adequate time to do so.</p>		
Southern Company	Yes	The development of a working TVMP will take some time to initialize. The 1 year time frame for R3 is appropriate. The 2 year time frame for all other requirements is appropriate.

Organization	Yes or No	Question 4 Comment
<b>Response:</b> Thank you for your comment and support.		
Seattle City Light	Yes	The explanation deals with the fact that there are simultaneous revisions of FAC-003 underway by two different teams.
<b>Response:</b> Thank you for your comment and support.		
MRO NSRF	Yes	There may be a typographical error on the effective date. As currently drafted the standard states: In those jurisdictions where regulatory approval is required, Requirement R1 applied to the Generator Owner becomes 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 where such explicit approval for all requirements is required. In those jurisdictions where no regulatory approval is required, Requirement R3 becomes effective on the first day of the first calendar quarter one year following Board of Trustees adoption. Should it be worded as follows? In those jurisdictions where regulatory approval is required, Requirement R1 applied to the Generator Owner becomes 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 where such explicit approval for all requirements is required. In those jurisdictions where no regulatory approval is required, Requirement R3 R1 becomes effective on the first day of the first calendar quarter one year following Board of Trustees adoption.
<b>Response:</b> Thank you for your comment. The SDT agrees with you. "Requirement R3," will be corrected to "Requirement R1."		
RES Americas Development/ American Wind Energy Association	Yes	Yes, as with our comments to question 2, since there is no exigent reason why this standard needs to be put in place at once, we support the proposed compliance timeframe. We believe that it will allow generators a reasonable time to comply with the requirement.

Organization	Yes or No	Question 4 Comment
<b>Response:</b> Thank you for your comment and support.		
SERC OC Standards Review Group	Yes	
Northeast Power Coordinating Council, Northeast Power Coordinating Council	Yes	
Southwest Power Pool Regional Entity	Yes	
SERC Planning Standards Subcommittee	Yes	
Florida Municipal Power Agency	Yes	
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	
ACES Power Marketing Standards Collaborators	Yes	
Electric Power Supply Association	Yes	
American Electric Power	Yes	
BP Wind Energy North	Yes	

Organization	Yes or No	Question 4 Comment
America Inc.		
Exelon	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
American Transmission Company	Yes	
South Carolina Electric and Gas	Yes	
Sempra Generation	Yes	
Entergy Services	Yes	
Xcel Energy	Yes	
Cowlitz County PUD	Yes	
Constellation Power Source Generation	Yes	
Western Electricity Coordinating Council		

Organization	Yes or No	Question 4 Comment
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		
Consolidated Edison Co. of NY, Inc.		
ReliabilityFirst		
Tennessee Valley Authority		

5. In the FAC-003-3 implementation plan, the SDT has attempted to account for a number of different scenarios that could play out with respect to the filing and approvals of FAC-003-2 and FAC-003-3. Do you support this approach? If there are other scenarios that the SDT needs to account for, please suggest them here.

#### Summary Consideration:

The SDT thanks all stakeholders for their comments. The vast majority of stakeholders support the compliance timeframes as proposed and explained in the Implementation Plan for FAC-003-3.

One commenter thought that two years was too long for an Implementation Plan for this standard. The SDT reminded those commenters that the time frame was based on previous stakeholder comments and the fact that the Implementation Plan for Version 0 standards stated “the Version 0 Reliability Standards are generally a translation and clarification of existing operating policies and planning standards, entities that are in compliance with NERC policies and standards today are expected to be able to remain in compliance with the Version 0 Reliability Standards with their existing procedures, tools, and practices.” This process occurred over more than two years. It is therefore reasonable to assume that GOs, having never had to comply with a vegetation management standard, be afforded adequate time to do so.

Some stakeholders expressed confusion about the relationship between FAC-003-3 and the recently BOT-approved FAC-003-2. The SDT acknowledges that in November 2011, NERC’s Board of Trustees adopted FAC-003-2 – Transmission Vegetation Management (developed under Project 2007-07 Vegetation Management). Based on this approval, NERC staff will file FAC-003-2 with the applicable regulatory authorities. The Project 2010-07 SDT will move forward with ballots for both FAC-003-3 (proposed changes to the BOT-adopted FAC-003-2) and FAC-003-X (proposed changes to the FERC-approved FAC-003-1) with the intention of eventually only filing FAC-003-3. The SDT has elected to carry FAC-003-X through to ballot because if FAC-003-2 and FAC-003-3 are not approved by FERC, the SDT wants to be ready to file FAC-003-X to ensure that there is a functional entity responsible for managing vegetation on the piece of line commonly known as the generator interconnection Facility.

All stakeholders should note that for its recirculation ballot, the SDT will be balloting **both** FAC-003-3 and FAC-003-X, but stakeholders should **not** vote as though they are choosing one or the other. As stated above, the SDT plans to present FAC-003-3 alone to NERC’s Board of Trustees, but it wants to have FAC-003-X ready to submit to the Board if, for some reason, neither FAC-003-2 nor FAC-003-3 are approved by FERC. Members of the ballot body should vote on the merits of each version of FAC-003 individually. **In other words, stakeholders who support adding GOs to the applicability of FAC-003 should vote in the affirmative for both FAC-003-3 and FAC-003-X.**

Organization	Yes or No	Question 5 Comment
Manitoba Hydro	No	See question 3 comments.
<b>Response:</b> See the SDT’s response to Question 3.		
Southern Company	No	We believe that a standard development process should not have parallel paths where the same version is being modified by multiple teams. The uncertainty in which development path leads to confusion in the industry and ultimately proves to have wasted some resources for the path that does not come to fruition.
<p><b>Response:</b> Thank you for your comment. While the SDT agrees this is not preferable, it was necessary given the urgency of both projects. The SDT did the best it could to describe the scenarios and reasons for posting multiple versions.</p> <p>In November 2011, NERC’s Board of Trustees adopted FAC-003-2 – Transmission Vegetation Management (developed under Project 2007-07 Vegetation Management). Based on this approval, NERC staff will file FAC-003-2 with the applicable regulatory authorities. The Project 2010-07 SDT will move forward with ballots for both FAC-003-3 (proposed changes to the BOT-adopted FAC-003-2) and FAC-003-X (proposed changes to the FERC-approved FAC-003-1) with the intention of eventually only filing FAC-003-3. The SDT has elected to carry FAC-003-X through to ballot because if FAC-003-2 and FAC-003-3 are not approved by FERC, the SDT wants to be ready to file FAC-003-X to ensure that there is a functional entity responsible for managing vegetation on the piece of line commonly known as the generator interconnection Facility.</p>		
Ingleside Cogeneration LP (Occidental Chemical)	Yes	Ingleside Cogeneration agrees that the SDT’s approach is thorough. We are far more concerned about FAC-003’s applicability criteria and implementation time frame at this point - as stated in our responses to questions 3 and 4.
<b>Response:</b> Thank you for your comment and support. Please refer to the SDT’s responses to Questions 3 and 4.		
ACES Power Marketing Standards Collaborators	Yes	With recent NERC BOT approval of the FAC-003-2 standard, the drafting team should continue to monitor the standard progress with FERC and make necessary adjustments to the implementation plan.
<b>Response:</b> Thank you for your comment. The SDT acknowledges that FAC-003-2 was recently approved by the BOT. The SDT does not		

Organization	Yes or No	Question 5 Comment
<p>see the need to revise the GO implementation plan, as it already accounts for a number of scenarios that could occur based on how FERC handles the filing of FAC-003-2.</p>		
<p>Ameren</p>		<p>(a) There is no technical basis for the one mile length exemption. In fact, one could argue that a very short line, 300 feet in length, that experienced a fault from a tree at "the end of the circuit", i.e near the switchyard fence, would have much more of an impact on the BES because the fault would be limited by much less impedance.</p> <p>(b) It is also unclear in this version if a GO that owned one line that was 1.2 miles in length would have to comply for the entire length of said line, or just 0.2 miles of said line. If the GO is responsible for 1.2 miles, then that argues that the first mile is important and consequently there is no basis for ignoring the first mile on other lines. If the GO is only responsible for 0.2 miles, what is the technical basis to ignore a mile? And would it be the first mile from the switchyard that is ignored, or is the middle mile, or the last mile where it connects to the TO? Or could the GO decide? Or could the GO pick sections of the line that amount to a mile that they can ignore? This seems like something that should be addressed for compliance.</p> <p>(c) The 2 year compliance time line is far too long. There is significant industry evidence that was developed in the drafting of Version 2 that supports a one year compliance time-line for new lines. This is evidenced in Version 2. Thus there is no basis for the 2 years</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled "<a href="#">Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface</a>," the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del></p> <p>With respect to your second comment, the SDT intended for the length qualifier to be just that; if the overhead portion of a Facility</p>		

Organization	Yes or No	Question 5 Comment
<p>exceeds the distance, <u>the entire Facility</u> is subject to the requirements of the standard.</p> <p>The SDT choose the time in the implementation plan based upon reasons it documented in the <u>accompanying implementation plan</u> and also based upon comments of stakeholders.</p>		
PSEG	Yes	
SERC OC Standards Review Group	Yes	
Southwest Power Pool Standards Development Team	Yes	
Northeast Power Coordinating Council, Northeast Power Coordinating Council	Yes	
MRO NSRF	Yes	
SERC Planning Standards Subcommittee	Yes	
Florida Municipal Power Agency	Yes	
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	
Electric Power Supply Association	Yes	

Organization	Yes or No	Question 5 Comment
American Wind Energy Association	Yes	
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Exelon	Yes	
Seattle City Light	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
American Transmission Company	Yes	
South Carolina Electric and Gas	Yes	
RES Americas Development	Yes	
Sempra Generation	Yes	
Entergy Services	Yes	

Organization	Yes or No	Question 5 Comment
Xcel Energy	Yes	
Cowlitz County PUD	Yes	
Texas Reliability Entity	Yes	
Constellation Power Source Generation	Yes	
Tennessee Valley Authority	Yes	
Southwest Power Pool Regional Entity		
Western Electricity Coordinating Council		
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		
Consolidated Edison Co. of NY, Inc.		
ReliabilityFirst		

6. In its technical justification document, the SDT reviews all standards that had been proposed for substantive modification in the Ad Hoc Group’s original support and explains why, with the exception of FAC-003, modifying them would not provide any reliability benefit. Do you support these justifications? If you believe the SDT needs to add more information to its rationale for any of these decisions, please include suggested language here.

**Summary Consideration:**

The SDT thanks all stakeholders for their comments.

A few commenters pointed out that the wording in R1 and R2 of PRC-005-1a requires the same explicit reference to a generator interconnection Facility that was added in PRC-004-2a R2. The SDT is developing revisions to PRC-005-1a and will post them soon.

Many commenters encouraged the SDT to reexamine the standards and requirements that FERC and NERC applied to GOs and GOPs in their Milford/Cedar Creek order and draft compliance directive regarding generator leads. The SDT pointed out that the NERC Standard Processes Manual does not address the issue of how to deal with FERC Orders (that don’t include explicit directives), or NERC directives, within the standards process, and until this round of comments, when NERC staff submitted comments, the SDT had no formal mandate that would have made it appropriate to consider the content of the proposed directive.

Based on stakeholder comments, the SDT expanded its technical justification document (posted under “Supporting Materials”) to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.

One commenter remains concerned about the scope of the SDT. The SDT reminded this commenter that its scope is addressed in the SAR and that its intent is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT also refers the commenter to the document titled Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document. Specifically, see the last paragraph on page 4 and first two on page 5.

Organization	Yes or No	Question 6 Comment
Manitoba Hydro	Negative	The intention of the NERC SDT in revising these standards is not clear. While the Technical Justification document states that the SDT intended to focus on a Generator

Organization	Yes or No	Question 6 Comment
		<p>Owner’s radial interconnection facilities, the scope of the revised standard (s) is not confined to such facilities. The very broadly defined term “Facility” is used. Moreover, the Technical Justification document’s reference to the FERC decision in Cedar Creek as a basis for the revision of additional standards is confusing, since that decision did not specifically address the issue of radial facilities and supported NERC’s registration of GOs as TOs.</p>
<p><b>Response:</b> Thank you for your comment. The scope of this SDT is addressed in the <a href="#">SAR</a>. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT determined that it should first address “low-hanging fruit” and believes these to be sole-use Facilities (see posted examples under “Supporting Materials”) – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP). Through our deliberations, we came to the conclusion that an interconnection Facility owned or operated by a GO or GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT.</p> <p>The SDT also refers the commenter to the document titled <a href="#">Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document</a>. Specifically, see the last paragraph on page 4 and first two on page 5.</p>		
Texas Reliability Entity	No	<p>Our negative votes on FAC-003 reflect our concern that this project has not considered all of the applicable standards. Why did the SDT choose to only review the Ad Hoc Group’s standards when there have been multiple registration appeals in which FERC and NERC have repeatedly cited specific additional TO/TOP standards that were determined to be applicable to GO/GOPs? This SDT project would serve a tremendous value to the ERO and in particular industry if it were to address the technical aspects of the following FERC ordered applicable standards: PRC-001-1 R2, R4; PRC-004-1 R1; TOP-004-2 R6; PER-003-1 R1; FAC-003-1 R1, R2; TOP-001-1a R1 and FAC-004-2 R2. The SDT team should analyze the FERC orders, the applicable standards indicated, and the circumstances and facts involved, and technically justify why no reliability gap exists if these standards are not applied to GO interface facilities. The SDT should include more “technical” information in its technical justification document. For example, in regards to TOP-004-2 R7, the SDT technical</p>

Organization	Yes or No	Question 6 Comment
		<p>justification states that there is no reliability gap because, “. . . because an operator has a fiduciary obligation to protect a Facility for which it is operationally responsible.” An entity having a fiduciary obligation is not a technical justification of why a reliability gap does not exist. Moreover, by that logic there would be no need for many standards because every registered entity has a fiduciary obligation to protect its facilities.</p>
<p><b>Response:</b> Thank you for your comment. The NERC <a href="#">Standard Processes Manual</a> does not address the issue of how to deal with FERC Orders (that don’t include explicit directives), or NERC directives, within the standards process, and until this round of comments, when NERC staff submitted comments, the SDT had no formal mandate that would have made it appropriate to consider the content of the directive you reference.</p> <p>We would like to clarify, in response to the comment concerning TOP-004-2 R7, that in the document titled “<a href="#">Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface</a>” the SDT also stated “FAC-008-1—Facility Ratings Methodology and FAC-009-1—Establish and Communicate Facility Ratings already infer that the reason for establishing a ratings methodology and communicating facility ratings to the Reliability Coordinator, Planning Authority, Transmission Planner, and Transmission Operator is for use in reliable planning and operation of the Bulk Electric System.”</p> <p>Based on your and other comments, we have expanded our technical justification document (posted under “Supporting Materials”) to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>		
PSEG	No	<p>PRC-005-1 - Transmission and Generation Protection System Maintenance and Testing was recommended by the Ad Hoc Group for modification, but not addressed to the technical justification document. It should be.</p>
<p><b>Response:</b> Thank you for your comment. We have reviewed PRC-005-1a and believe that the wording in R1 and R2 of that standard require the same explicit reference to a generator interconnection Facility that was added in PRC-004-2a R2. The SDT is developing revisions to PRC-005-1a and will post them soon.</p>		
Florida Municipal Power	No	see comment to Question 7

Organization	Yes or No	Question 6 Comment
Agency		
<b>Response:</b> See the SDT’s response to Question 7.		
Manitoba Hydro	No	See Question 7 comments.
<b>Response:</b> See the SDT’s response to Question 7.		
MRO NSRF	No	The NSRF has one concern with the current justification and definitions. At some point, if enough interconnections are made to generator outlet leads in accordance with FAC-001, the original generator operator will be a Transmission Operator and a Transmission Owner. This point in time needs to be explicitly defined by the drafting team.
<b>Response:</b> The SDT cannot act on this comment. Registration is outside the scope of this SDT and resides with NERC and the Regional Entity.		
Manitoba Hydro		If the drafting team intends to limit the scope of FAC-001-1 to GO owned radial generator interconnection facilities that are not deemed BES transmission and therefore would not require the registration of the GO as a TO, Manitoba Hydro disagrees with the proposed changes to FAC-001-1 as Generator Owners may not have the models or expertise to perform interconnection studies to determine if there is an impact on the Transmission Network. This concern is echoed in the technical justification document provided by NERC: ‘the SDT acknowledges that the Generator Owner may not, at the time it agrees or is compelled to allow a third part to interconnect, have the necessary expertise to conduct the required interconnect studies to meet this standard... the Generator Owner will have to acquire such expertise. How the Generator Owner chooses to do so is not for the SDT to determine.’ Although it may not be for the SDT to determine how a GO obtains technical expertise, ensuring that such expertise is acquired before a GO conducts the required interconnection studies should be a concern to NERC as this directly affects

Organization	Yes or No	Question 6 Comment
		<p>the reliability of the BES. As a result, all interconnection requests should be implemented by the TO providing the GO with connection to the BES regardless if the interconnection point is within a Generation Owner facility or End-User facility as the TO is in the best position to set unbiased connection requirements to ensure the reliability of the BES is maintained. If the scope of FAC-001-1 also applies to GO owned BES transmission facilities, Manitoba Hydro strongly believes that the Compliance Registry should apply and the GOs should be required to register as a TO and abide by all applicable standards to that functional type. There is no need to change specific Reliability Standards to allow the Generator Owner to perform only selected TO functions. Reliability gaps would be better addressed if select GOs and GOPs registered as TOs and TOPs to ensure all reliability standards, including the protection standards, are met so the reliability of the BES is maintained. At this time, this would not lead to a large number of extra registrations since, as stated in the technical justification document, ‘interconnection requests for Generator Owner Facilities are still relatively rare.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees this is a complex issue and did its best to outline how it arrived at its position in the document titled <a href="#">“Technical Justification: FAC-001-1.”</a></p> <p>The SDT points out that if the GO is part of an RTO, then the GO will be coordinating any interconnection studies either directly or indirectly with the RTO interconnection process. If the GO is not part of an RTO, then the GO will be required to follow the pro forma interconnection procedures from Order 2003. The Order 2003 procedures require the GO to coordinate any studies with an affected system which could include Facilities owned by one, or more, TO on the other side of the GO’s existing point of interconnection.</p> <p>The SDT has proposed the modification of a select set of standards so that they apply to GOs and GOPs as an alternative to registering all GOs and GOPs as TOs and TOPs. The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.</p>		
Electric Power Supply Association	Affirmative	<p>All TO requirements for FAC-001-1 would apply if and when GO executes an Agreement to evaluate the reliability impact of interconnecting a third party Facility to its existing generation interconnection Facility. The execution of the agreement is necessary to comply with FAC-002-1 and start the compliance clock with the</p>

Organization	Yes or No	Question 6 Comment
		<p>applicable regulatory authority. Thus as the Project 2010-07 Standard Drafting Team (SDT) in its technical justification has stated, “If, and only if, the existing owner of a generator interconnection Facility has an executed Agreement to evaluate the reliability impact of interconnecting a third party Facility to its existing generation Facility” then FAC-001-1 should apply. EPSA concurs with SDT’s conclusion. The SDT has examined the issue regarding if future requests for transmission service on the interconnection Facility and in doing so acknowledged that when that Facility adopted open access and was providing transmission service it would necessitate re-evaluation of the need for the Facility to be maintained in accordance with FAC-001-1, Requirements 2 and 4. This service would indeed prompt the necessary agreement the SDT contemplates in its technical justification of FAC-001-1. EPSA believes this serves as the necessary trigger for evaluation of Requirements 2 and 4 under FAC-001-1 for GOs.</p>
<p><b>Response:</b> Thank you for your comment and support.</p>		
<p>Infigen Energy US</p>	<p>Affirmative</p>	<p>Infigen supports the FAC-001-1 technical analysis by the Project 2010-07 SDT, which states in part that “If, and only if, the existing owner of a generator interconnection Facility has an executed Agreement to evaluate the reliability impact of interconnecting a third party Facility to its existing generation Facility would the proposed FAC-001-1 apply”. We agree with the SDT’s reasoning that if the owner of the existing generator interconnection Facility agrees, or is compelled to allow a third party to interconnect, but can do so using existing agreements, contracts, and/or tariffs [to avoid requiring additional executed Agreement(s)], this is the most prudent and effective way to manage this process with continuity. In order to evaluate the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility more expediently, it can avoid having to develop its own connection requirements or perform additional impact studies, to the extent possible. We find it reasonable to negotiate with the existing Transmission Owner, Transmission Planner, and/or Transmission Service Provider to manage this requirement, utilizing their</p>

Organization	Yes or No	Question 6 Comment
		existing processes and Agreements for the purpose of fulfilling FAC-001-1.
<p><b>Response:</b> Thank you for your comment and support.</p>		
Southern Company	Yes	Additional responses are needed to justify the exclusion of the list of requirements and standards found in the recent FERC order denying the rehearing request of the Compliance Registry Appeals of Cedar Creek and Milford. (135 FERC Para. 61,241). Please see our response to Question 10 for a detailed discussion on this topic.â€,â€,â€,
<p><b>Response:</b> Thank you for your comment. The NERC <a href="#">Standard Processes Manual</a> does not address the issue of how to deal with FERC Orders (that don't include explicit directives), or NERC directives, within the standards process, and until this round of comments, when NERC staff submitted comments, the SDT had no formal mandate that would have made it appropriate to consider the content of the directive you reference.</p> <p>Based on your and other comments, we have expanded our technical justification document (posted under "Supporting Materials") to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>		
Constellation Power Source Generation	Yes	Constellation supports the SDT justifications and offers additional information in our response to question 10.
<p><b>Response:</b> Thank you for your comment and support.</p>		
Ingleside Cogeneration LP (Occidental Chemical)	Yes	Ingleside Cogeneration LP believes the SDT has spent a significant amount of time and effort to demonstrate that only FAC-001, FAC-003, and PRC-004 need to be modified to address any reliability gaps that may exist related to the GO-TO interconnection. We agree that the other standards/requirements identified by the Ad Hoc Group are covered elsewhere.
<p><b>Response:</b> Thank you for your comment and support.</p>		

Organization	Yes or No	Question 6 Comment
American Wind Energy Association	Yes	The reasoning of the SDT is comprehensive and makes a strong case for why there is no need for additional standards to be applied to GO/GOP lead lines as they will not improve the reliability of the Bulk Electric System. In fact, as noted above, such additional standards may decrease reliability by diverting the GO/GOP's resources from the operation of the equipment that actually produces electricity - the generation equipment itself.
<b>Response:</b> Thank you for your comment and support.		
RES Americas Development	Yes	The reasoning of the SDT is comprehensive and makes a strong case for why there is no need for additional standards to be applied to GO/GOP lead lines as they will not improve the reliability of the Bulk Electric System. In fact, as noted above, such additional standards may decrease reliability by diverting the GO/GOP's resources from the operation of the equipment that actually produces electricity - the generation equipment itself.
<b>Response:</b> Thank you for your comment and support.		
SERC OC Standards Review Group	Yes	
Southwest Power Pool Standards Development Team	Yes	
Northeast Power Coordinating Council, Northeast Power Coordinating Council	Yes	
Southwest Power Pool Regional Entity	Yes	

Organization	Yes or No	Question 6 Comment
SERC Planning Standards Subcommittee	Yes	
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	
ACES Power Marketing Standards Collaborators	Yes	
Electric Power Supply Association	Yes	
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Exelon	Yes	
Seattle City Light	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
American Transmission Company	Yes	
South Carolina Electric and	Yes	

Organization	Yes or No	Question 6 Comment
Gas		
Sempra Generation	Yes	
Xcel Energy	Yes	
Cowlitz County PUD	Yes	
Western Electricity Coordinating Council		
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		
Independent Electricity System Operator		
Ameren		
Consolidated Edison Co. of NY, Inc.		
Entergy Services		
ReliabilityFirst		

Organization	Yes or No	Question 6 Comment
Tennessee Valley Authority		

**7. The SDT is attempting to modify a set of standards so that radial generator interconnection Facilities are appropriately accounted for in NERC's Reliability Standards, both to close reliability gaps and to prevent the unnecessary registration of GOs and GOPs at TOs and TOPs. Does the set of standards currently posted achieve this goal?**

**Summary Consideration:**

The SDT thanks all stakeholders for their comments. Most commenters support the SDT's work and agree that the set of standards for which the SDT has proposed modification ensure that radial generator interconnection Facilities are appropriately accounted for in NERC's Reliability Standards.

One commenter continues to express confusion about the scope of the SDT's work in general. The SDT reminded this commenter that its scope is addressed in the [SAR](#). The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT determined that it should first address "low-hanging fruit" and believes these to be sole-use Facilities (see posted examples under "Supporting Materials") – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP). Through its deliberations, the SDT came to the conclusion that an interconnection Facility owned or operated by a GO or GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT. The SDT also refers the commenter to the document titled [Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document](#) (specifically, the last paragraph on page 4 and first two on page 5). The SDT has proposed the modification of a select set of standards so that they apply to GOs and GOPs as an alternative to registering all GOs and GOPs as TOs and TOPs, a strategy that has been widely supported by the stakeholder body. The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.

One commenter asked the SDT to specify what it means by "radial." By "radial generator interconnection Facilities," the SDT means sole-use Facilities (see posted examples under "Supporting Materials") – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP).

A few commenters suggested that the SDT address those standards cited by FERC and NERC in related projects. The SDT pointed out that the NERC [Standard Processes Manual](#) does not address the issue of how to deal with FERC Orders (that don't include explicit directives), or NERC directives, within the standards process. However, based on stakeholder comments, the SDT has expanded its technical justification document (posted under "Supporting Materials") to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.

One commenter suggested that the SDT include the GO in TOP-004-2 R6, but the SDT continues to maintain that no gap exists because TOP-002-2 R3 already requires the GO to coordinate with its host BA and TSP, who in turn are required to coordinate with their TOPs.

One commenter pointed out that the Data Retention section of the proposed PRC-004-2.1a also requires modification to include the generator interconnection Facility. The SDT agrees and made this change.

Organization	Yes or No	Question 7 Comment
Manitoba Hydro	Negative	<p>Manitoba Hydro has the following comments:</p> <p>1) The intention of the NERC SDT in revising these standards is not clear. While the Technical Justification document states that the SDT intended to focus on a Generator Owner’s radial interconnection facilities, the scope of the revised standard (s) is not confined to such facilities. The very broadly defined term “Facility” is used. Moreover, the Technical Justification document’s reference to the FERC decision in Cedar Creek as a basis for the revision of additional standards is confusing, since that decision did not specifically address the issue of radial facilities and supported NERC’s registration of GOs as TOs.</p> <p>2) Manitoba Hydro strongly disagrees with bypassing the NERC Compliance Registry and only having a limited set of standards apply to the GOs ‘interconnection facilities’ If a Generator Owner wants to own transmission facilities and it falls under the definition of a Transmission Owner under the NERC Registry Criteria, then all the Requirements applicable to a TO should apply. There is no need to change specific Reliability Standards to allow the Generator Owner to perform only selected TO functions. Reliability gaps would be better closed if select GOs and GOPs simply registered as TOs and TOPs. At this time, this would not lead to a large number of extra registrations since, as stated in the technical justification document, ‘interconnection requests for Generator Owner Facilities are still relatively rare.</p>
<p><b>Response:</b> Thank you for your comment. The scope of this SDT is addressed in the <a href="#">SAR</a>. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT determined that it should first address “low-hanging fruit” and believes these to be sole-use Facilities (see posted examples under</p>		

Organization	Yes or No	Question 7 Comment
<p>“Supporting Materials”) – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP). Through our deliberations, we came to the conclusion that an interconnection Facility owned or operated by a GO or GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT.</p> <p>The SDT also refers the commenter to the document titled <a href="#">Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document</a>. Specifically, see the last paragraph on page 4 and first two on page 5.</p> <p>The SDT has proposed the modification of a select set of standards so that they apply to GOs and GOPs as an alternative to registering all GOs and GOPs as TOs and TOPs, a strategy that has been widely supported by the stakeholder body. The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.</p>		
Manitoba Hydro	Negative	<p>Manitoba Hydro strongly disagrees with bypassing the NERC Compliance Registry and only having a limited set of standards apply to the GOs ‘interconnection facilities’ If a Generator Owner wants to own transmission facilities and it falls under the definition of a Transmission Owner under the NERC Registry Criteria, then all the Requirements applicable to a TO should apply. There is no need to change specific Reliability Standards to allow the Generator Owner to perform only selected TO functions. Reliability gaps would be better closed if select GOs and GOPs simply registered as TOs and TOPs. At this time, this would not lead to a large number of extra registrations since, as stated in the technical justification document, ‘interconnection requests for Generator Owner Facilities are still relatively rare.</p>
<p><b>Response:</b> Thank you for your comment. The SDT has proposed the modification of a select set of standards so that they apply to GOs and GOPs as an alternative to registering all GOs and GOPs as TOs and TOPs, a strategy that has been widely supported by the stakeholder body. The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.</p>		
PSEG	No	<p>It would be helpful if the SDT defined what it means by the term “radial generator interconnection Facilities.” Does it mean interconnection Facilities that under Normal Clearing for a fault do not interrupt flows on other BES Elements? This is also confusing because of the radial exclusion included in the BES definition work in</p>

Organization	Yes or No	Question 7 Comment
		Project 2010-17. That definition would allow part of a three-terminal circuit to be excluded from the BES, while the other parts are included in the BES.
<p><b>Response:</b> Thank you for your comment. By “radial generator interconnection Facilities,” the SDT means sole-use Facilities (see posted examples under “Supporting Materials”) – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP). Through our deliberations, we came to the conclusion that an interconnection Facility owned or operated by a GO/GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT.</p>		
Texas Reliability Entity	No	See comment 6.
<p><b>Response:</b> See the SDT’s response to Question 6.</p>		
Manitoba Hydro	No	<p>The SDT’s proposed modifications gives special treatment to the Generator Owner in that it allows the Generator Owner TO status for a couple of standards (FAC-001, FAC-003 and PRC-004), but exempts the Generator Owner from many of the standards applicable to a TO. The NERC Registry Criteria defines the various functional entities. If a Generator Owner wants to own transmission facilities and it falls under the definition of a Transmission Owner under the NERC Registry Criteria, then all the Requirements applicable to a TO should apply. There is no need to change specific Reliability Standards to allow the Generator Owner to perform only selected TO functions. Reliability gaps would be better closed if select GOs and GOPs simply registered as TOs and TOPs. At this time, this would not lead to a large number of extra registrations since, as stated in the technical justification document, ‘interconnection requests for Generator Owner Facilities are still relatively rare.</p>
<p><b>Response:</b> Thank you for your comment. The scope of this SDT is addressed in the <a href="#">SAR</a>. The intent of the SAR is to address all reliability gaps associated with ownership or operation of an interconnection Facility by a generation entity (GO/GOP). The SDT determined that it should first address “low-hanging fruit” and believes these to be sole-use Facilities (see posted examples under “Supporting Materials”) – that is, a Facility used to connect one or more generators to a Facility owned or operated by a transmission entity (TO/TOP). Through our deliberations, we came to the conclusion that an interconnection Facility owned or operated by a GO or</p>		

Organization	Yes or No	Question 7 Comment
<p>GOP that is more complex would likely require specific analysis and that such analysis would most likely be outside the scope of this SDT.</p> <p>The SDT also refers the commenter to the document titled <a href="#">Project 2010-07: Generator Requirements at the Transmission Interface Background Resource Document</a>. Specifically, see the last paragraph on page 4 and first two on page 5.</p> <p>The SDT has proposed the modification of a select set of standards so that they apply to GOs and GOPs as an alternative to registering all GOs and GOPs as TOs and TOPs, a strategy that has been widely supported by the stakeholder body. The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.</p>		
<p>Southwest Power Pool Regional Entity</p>	<p>No</p>	<p>The Technical Justification document did not review the standards FERC identified in paragraphs 71 and 87 of 135 FERC ¶ 61,241 ORDER DENYING APPEALS OF ELECTRIC RELIABILITY ORGANIZATION REGISTRATION DETERMINATIONS. The SDT needs to review these standards to determine if changes are needed; otherwise, FERC will require registration of GOs and GOPs as TOs and TOPs to address reliability gaps. If the SDT determines no changes are needed to these FERC-identified standards, they should provide justification.</p>
<p><b>Response:</b> Thank you for your comment. The NERC <a href="#">Standard Processes Manual</a> does not address the issue of how to deal with FERC Orders (that don't include explicit directives) within the standards process. However, based on your and other comments, we have expanded our technical justification document (posted under "Supporting Materials") to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>		
<p>Southern Company</p>	<p>No</p>	<p>We don't believe the effort realizes the goal because 1) it is inclusive of FAC-001 that does not need any modifications and 2) the effort needs to reinforce the appropriate justification not to include the additional standards FERC has identified in their Cedar Creek and Milford Orders.</p>
<p><b>Response:</b> The SDT thanks you for your comment. The SDT believes that comment (1) is a complex issue and did its best to outline how it arrived at its position in the document titled "<a href="#">Technical Justification: FAC-001-1.</a>"</p>		

Organization	Yes or No	Question 7 Comment
		<p>As for comment (2), the NERC <a href="#">Standard Processes Manual</a> does not address the issue of how to deal with FERC Orders (that don't include explicit directives) within the standards process. However, based on your and other comments, we have expanded our technical justification document (posted under "Supporting Materials") to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>
<p>Western Electricity Coordinating Council</p>	<p>No</p>	<p>WECC casts an affirmative vote for the SDT proposal as a necessary but not sufficient step in addressing the GOTO matter. WECC, NERC, and the other Regions developed a subset of Standards and Requirements that were considered necessary to address potential gaps for transmission interconnection facilities and operations to be included in a proposed NERC Directive, which is expected to issue by year-end. The subset of requirements developed for the proposed NERC Directive were informed by the applicable FERC Orders. Consequently, it is important that the SDT address the comparative reliability risks between the proposed NERC Directive List and the SDT Proposal to assure that reliability gaps will not result from the SDT proposal. Please see NERC's proposed Directive for the rationale and technical justification.</p>
<p><b>Response:</b> Thank you for your comment. The NERC <a href="#">Standard Processes Manual</a> does not address the issue of how to deal with FERC Orders (that don't include explicit directives), or NERC directives, within the standards process, and until this round of comments, when NERC staff submitted comments, the SDT had no formal mandate that would have made it appropriate to consider the content of the directive you reference.</p> <p>However, based on your and other comments, we have expanded our technical justification document (posted under "Supporting Materials") to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>		
<p>Florida Municipal Power Agency</p>		<p>FMPA believes that TOP-004-2 R6.2 ought to also be addressed in the standards as applicable to GOPs. The requirements reads:R6. Transmission Operators, individually and jointly with other Transmission Operators, shall develop, maintain, and</p>

Organization	Yes or No	Question 7 Comment
		<p>implement formal policies and procedures to provide for transmission reliability. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional reliability, including: R6.2. Switching transmission elements. Although planned outages are covered in other standards applicable to a GOP, switching to close / synchronize a generator back to the system is not specifically covered in the standards. Some have argued that TOP-002-2 R3 causes GOPs to coordinate its current day plans with the TOP; however, the name of the standard is “Transmission Operations Planning” and therefore implies the availability of the generator and related equipment and not necessary implies the policies and procedures for switching operations; which includes synchronization. FMPA cannot imagine a generator that would not have such switching / synchronization policies and procedures coordinated with its interconnecting TOP; as such would normally be required through a Large Generator Interconnection Agreement through a pro forma OATT; however, FMPA is not aware of any instance in the standards that covers this. As such, FMPA recommends including TOP-004-2 R6.2 as being applicable to a GOP.</p>
<p><b>Response:</b> Thank you for your comment. We don’t agree that the gap exists because TOP-002-2 R3 already requires the GO to coordinate with its host BA and TSP, who in turn are required to coordinate with their TOPs.</p>		
Manitoba Hydro		<p>If the redline changes are implemented, GOs are removed from R4, thereby removing the obligation for GOs to maintain their connection requirements. If GOs are included in FAC-001, they should be held accountable to the same level as TOs and should be required to maintain their connection requirements. Requiring a GO to maintain connection requirements would be especially beneficial to the GO themselves. In the majority of instances, any GO that is an Applicable Entity for FAC-001 would initially be inexperienced in performing interconnection studies and would benefit from regular and frequent review of their connection requirements as experience and expertise are gained.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees this is a complex issue and did its best to outline how it arrived at its position</p>		

Organization	Yes or No	Question 7 Comment
in the document titled " <a href="#">Technical Justification: FAC-001-1.</a> "		
SERC OC Standards Review Group		Please list the set of standards are you referencing.
<b>Response:</b> The SDT is referring to those standards posted for comment (FAC-001-1, FAC-003-X, FAC-003-3, and PRC-004-2.1).		
Constellation Power Source Generation, Inc.	Affirmative	Constellation appreciates and supports the work of the standard drafting team. We recognize the significant time invested by technical experts from industry to consider the appropriate application of reliability standards to address concerns raised about coverage of transmission at the generator interface. The drafting team analysis identified the standards in need of revision to appropriately address the reliability concerns raised. Please see more detailed comments submitted in the Project 2010-07 comment form submitted on November 18, 2011.
<b>Response:</b> Thank you for your comment and support.		
Infigen Energy US	Affirmative	Infigen finds the SDT supporting measures and analysis regarding FAC-003-3 to be appropriate, and believes that it is prudent for Generation Owners and Transmission Owners to manage vegetation maintenance records/inspections accordingly. We support maintaining "reasonable and appropriate" risk prevention measures to minimize encroachment that could trigger vegetation-related outages.
<b>Response:</b> Thank you for your comment and support.		
PPL EnergyPlus LLC	Affirmative	PPL Generation, LLC, on behalf of its NERC-registered subsidiaries, appreciates the effort by the Standard Development Team to address the GO-TO interface issues in a manner that enhances the reliability of the BES without adding unnecessary burden on Generators. As registered GOs/GOPs, the PPL Generation registered entities agree with the changes made by the SDT to these three standards. To the extent that GOs/GOPs are required to register as TOs/TOPs, PPL Generation would have

Organization	Yes or No	Question 7 Comment
		significant concerns with meeting the compliance requirements applicable to TOs in the standards included in the scope of this Project, as well as other TO/TOP requirements throughout other NERC standards.
<p><b>Response:</b> Thank you for your comment and support.</p>		
Puget Sound Energy, Inc.	Affirmative	The changes to this standard are minor, and seem to be centered around including "generator Interconnection facilities" to R2. This added phrase and the statement in 1.4 Data Retention "Generator Owner that owns a generation Protection System" seems to assume that the generator owner and generator interconnection facilities owner is always the same. This is not always the case, and will make this standard language confusing to prepare evidence for. A suggestion would be to revise the language to allow for a separate generator owner and generator interconnection facilities owner.
<p><b>Response:</b> Thank you for your comment. The SDT believes that the language makes clear that an entity need only be concerned with the Elements or Facilities that it owns.</p> <p>The SDT agrees with your comment regarding the language in the Data Retention section and has modified that section as follows: "The Transmission Owner, and Distribution Provider that own a transmission Protection System and the Generator Owner that owns a generation or generator interconnection Protection System..."</p>		
Southwest Transmission Cooperative, Inc. / ACES Power Marketing	Affirmative	We largely support the changes made by drafting team because we believe the drafting team has provided the best solution in face of a difficult problem. However, in general, we do not support registration of GOs and GOPs as TOs and TOPs or applicability of any TO/TOP requirements to the GO/GOP simply because they have a radial interconnection greater than one mile in length. While there may be some generators that own interconnecting facilities of significant length operated at a significant voltage that could impact BES reliability, we do not believe that the number of generating facilities that fit into that category is significantly large. When one considers that the majority of generators are still owned and operator by utilities that are also registered as a TO and TOP, there is only a minority subset of generators

Organization	Yes or No	Question 7 Comment
		<p>left that could be considered. NERC has the registration for this remaining set of generators and could use the data to evaluate how many of this remaining subset have interconnections owned by the generator that are substantial enough to affect reliability. It seems that NERC could determine the boundaries of this problem before registering anymore GOs and GOPs as TOs and TOPs or before applying additional requirements through this effort on the GOs and GOPs. Subjecting a GO/GOP to any TO/TOP standards requirements should require a clear demonstration of the reliability gap in each instance. Some additional changes are necessary to FAC-001.</p>
<p><b>Response:</b> Thank you for your comment and support. We are unsure as to what changes to FAC-001 you feel are necessary unless you are referring to comments stated previously.</p>		
<p>Ingleside Cogeneration LP (Occidental Chemical)</p>	<p>Yes</p>	<p>Although the SDT is nearing conclusion on the closing of reliability gaps, the unnecessary registration of GOs and GOPs as TOs and TOPs is far from resolved in our view. Ingleside Cogeneration’s concern is based upon NERC’s recent proposal to dictate an interim GO-TO interconnection solution which completely bypasses the Standards Development Process. Frankly, it seriously brings to question the nature of the consensus-driven process - which appears to be moving in a dictatorial direction.</p>
<p><b>Response:</b> Thank you for your comment and support.</p>		
<p>American Wind Energy Association</p>	<p>Yes</p>	<p>AWEA believes that the standards modifications proposed by the SDT should address any genuine reliability gap with regard to generator lead lines, rather than just perceived but unsupported threats. To that end, we support the approach that the SDT appears to be taking of modifying a limited number of applicable standards so that they apply to GO/GOP lead lines. In particular, we fully support the fact that the SDT recognizes that GO/GOPs should not automatically be required to register as TO/TOPs simply because of their ownership of generator lead lines. The SDT correctly recognizes that such registration should be done based on a case-by-case determination. As already noted, registering a GO/GOP as a TO/TOP may actually decrease reliability.</p>

Organization	Yes or No	Question 7 Comment
<b>Response:</b> Thank you for your comment and support.		
RES Americas Development	Yes	We believe that the standards modifications proposed by the SDT should address any genuine reliability gap with regard to generator lead lines, rather than just perceived but unsupported threats. To that end, we support the approach that the SDT appears to be taking of modifying a limited number of applicable standards so that they apply to GO/GOP lead lines. In particular, we fully support the fact that the SDT recognizes that GO/GOPs should not automatically be required to register as TO/TOPs simply because of their ownership of generator lead lines. The SDT correctly recognizes that such registration should be done based on a case-by-case determination. As already noted, registering a GO/GOP as a TO/TOP may actually decrease reliability.
<b>Response:</b> Thank you for your comment and support.		
Southwest Power Pool Standards Development Team	Yes	
Northeast Power Coordinating Council, Northeast Power Coordinating Council	Yes	
MRO NSRF	Yes	
SERC Planning Standards Subcommittee	Yes	
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	
ACES Power Marketing	Yes	

Organization	Yes or No	Question 7 Comment
Standards Collaborators		
Electric Power Supply Association	Yes	
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Exelon	Yes	
Seattle City Light	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
Ameren	Yes	
American Transmission Company	Yes	
Sempra Generation	Yes	
Xcel Energy	Yes	

Organization	Yes or No	Question 7 Comment
Cowlitz County PUD	Yes	
Constellation Power Source Generation	Yes	
Puget Sound Energy, Inc.		
Compliance & Responsibility Organization		
Bonneville Power Administration		
South Carolina Electric and Gas		
Consolidated Edison Co. of NY, Inc.		
Entergy Services		
ReliabilityFirst		
Tennessee Valley Authority		

8. If you answered “yes” to Question 7, are the modifications the SDT has made in this posting the appropriate ones?

**Summary Consideration:**

The SDT thanks all stakeholders for their comments. In this section, commenters either offered their support or directed the SDT to their comments on other questions in this report.

Organization	Yes or No	Question 8 Comment
Ameren	No	Please refer to our comments in responses to #3, #4, and #5 above.
<b>Response:</b> Please see the SDT’s responses to Questions 3, 4, and 5.		
Texas Reliability Entity	No	See comment 6.
<b>Response:</b> Please see the SDT’s response to Question 6.		
Ingleside Cogeneration LP (Occidental Chemical)	No	See comments to questions 1 through 4.
<b>Response:</b> Please see the SDT’s responses to Questions 1-4.		
SERC Planning Standards Subcommittee	No	See our comments above for question # 3.
<b>Response:</b> Please see the SDT’s response to Question 3.		
South Carolina Electric and Gas	No	The modifications are appropriate with the exception noted in question #3.
<b>Response:</b> Please see the SDT’s response to Question 3.		
ACES Power Marketing	No	The modifications are largely the appropriate ones with the exceptions we noted in Q1

Organization	Yes or No	Question 8 Comment
Standards Collaborators		and Q10.
<b>Response:</b> Please see the SDT’s responses to Questions 1 and 10.		
Southwest Power Pool Standards Development Team	No	We agree that the standards being addressed are correct. See above comments. There are some issues with the determination of which facilities are deemed BES since ownership of what may be a BES facility may not always be by a Transmission Owner. All relevant standards should apply to BES facilities regardless of ownership.
<b>Response:</b> Thank you for your comment.		
PSEG	No	
<b>Response:</b>		
SERC OC Standards Review Group		See comments on Question 7. If the standards referenced in question 7 are FAC-001, FAC-003 and PRC-004, we would answer yes to this question.
<b>Response:</b> Thank you for your comment and support.		
Southern Company	Yes	“The version history table is incorrect - change version 3 to version 2.1.”
<b>Response:</b> Thank you for your comment. We have made this change.		
RES Americas Development/ American Wind Energy Association	Yes	For the most, we agree that the SDT proposal strikes a reasonable balance and provides the requisite level of clarity and certainty necessary for GO/GOPs to understand their responsibilities and compliance requirements.
<b>Response:</b> Thank you for your comment and support.		
MRO NSRF	Yes	The NSRF agrees if the drafting team incorporates as suggested improvements

Organization	Yes or No	Question 8 Comment
<b>Response:</b> Thank you for your comment and support.		
Northeast Power Coordinating Council, Northeast Power Coordinating Council	Yes	
Dominion	Yes	
PPL NERC Registered Affiliates	Yes	
Electric Power Supply Association	Yes	
American Electric Power	Yes	
BP Wind Energy North America Inc.	Yes	
Exelon	Yes	
Seattle City Light	Yes	
Independent Electricity System Operator	Yes	
Duke Energy	Yes	
Oncor Electric Delivery Company LLC	Yes	
American Transmission	Yes	

Organization	Yes or No	Question 8 Comment
Company		
Sempra Generation	Yes	
Xcel Energy	Yes	
Cowlitz County PUD	Yes	
Constellation Power Source Generation	Yes	

**9. If you answered “no” to Question 7, what standards need to be added or removed to achieve the SDT’s goal? Please provide technical justification for your answer.**

**Summary Consideration:**

The SDT thanks all stakeholders who submitted comments. Few stakeholders suggested that standards need to be added or removed to achieve the SDT’s goal.

One commenter pointed out that PRC-005-1a required the same kind of change made in the proposed PRC-004-2.1a to ensure that generator interconnection Facility Protection Systems are included within that standard. The SDT agrees with this suggestion and has initiated a process to modify R1 and R2 in PRC-005-1a.

A few commenters returned to FAC-001-1 and stated their concern about the feasibility of adding FAC-001-1 to the applicability section of this standard. The SDT agrees with commenters that the issues surrounding the interconnection of a third party Facility to a GO’s existing Facilities are complex ones, and reminded commenters that it did its best to address these complexities in the resource document titled “[Technical Justification: FAC-001-1](#).” The SDT also points out that if the GO is part of an RTO, then the GO will be coordinating any interconnection studies either directly or indirectly with the RTO interconnection process. If the GO is not part of an RTO, then the GO will be required to follow the pro forma interconnection procedures from Order 2003. The Order 2003 procedures require the GO to coordinate any studies with an affected system which could include Facilities owned by one, or more, TO on the other side of the GO’s existing point of interconnection. The SDT acknowledges that upon interconnection of a third party, other standards or registrations may apply as appropriate.

Some commenters suggested that the SDT reexamine the standards cited in the Milford and Cedar Creek FERC orders. The SDT continues to find clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards and not requiring the GO or GOP to register as a TO or TOP. However, to address stakeholder concern, the SDT has expanded its technical justification document (posted under “Supporting Materials”) to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive.

Organization	Yes or No	Question 9 Comment
Cowlitz County PUD	No	N/A
Manitoba Hydro	No	See question 7 comments.

Organization	Yes or No	Question 9 Comment
<p><b>Response:</b> See the SDT’s response to Question 7.</p>		
<p>Southern Company</p>	<p>Yes</p>	<p>Southern does not think that the revision to FAC-001-1 is necessary. A Generator Owner (GO) cannot assess reliability impacts to the Bulk Electric System (BES) and determine acceptability without support and involvement of the applicable owner and operator of the Transmission System (i.e., the “interconnected TO” or “interconnected TP”). A generator tie-line does not equate to a Transmission System. A GO must already adhere to a TO’s Facility connection requirements whether the GO wants to connect additional facilities or a third parties’ facilities to its own interconnection Facilities. Stated another way, the GO does not need Facility Connection requirements to govern how multiple units are tied to a collector bus so why are they needed for a third party to connect to an existing tie-line? In either case it is the interconnected TO or interconnected TP that has connection requirements that must be fulfilled. The GO’s Interconnection Agreement would prohibit it from connecting additional facilities without a new application for Interconnection Service with its interconnected TO or interconnected TP. A GO should not need to develop “connection requirements” unless it is in the business of owning and operating facilities independently of its interconnected TO or interconnected TP. We do not believe a reliability gap exists in FAC-001-1 because the requestor for interconnecting another Facility to an existing generation Facility must coordinate with the applicable TO, TP, and PA in accordance with FAC-002-0 to ensure they meet all applicable facility connection and performance requirements. If and when there is an agreement in place for a third party to connect to a generator tie-line then the tie-line would become part of the integrated system and its purpose and the owner’s function would likely warrant registration as a TO/TOP and FAC-001 would then apply. The following excerpt from the 2010-07 Background Resource White Paper acknowledges that this may be necessary: “The drafting team also acknowledges that, if another party interconnects to a Facility owned by a Generator Owner, there may be the need to address MOD or TPL standards. However, the drafting team believes that this, too, is best handled through specific evaluation, perhaps accompanied by changes to the</p>

Organization	Yes or No	Question 9 Comment
		<p>compliance registry. Entities that face this kind of scenario may also meet criteria applicable to other registrations such as Transmission Service Provider or Transmission Planner.” [Arguments related to jurisdictional, interconnection policy and open access transmission tariff issues](1) Because of (a) jurisdiction under Section 215, (b) FERC’s interconnection policy, and (c) the requirements of the pro forma open access transmission tariff (OATT), a GO should not be required to comply with FAC-001-1 until that GO’s generating Facility reaches commercial operation. NERC should not make facilities subject to the mandatory reliability standards before the facilities are actually part of the BES.(a) Jurisdiction under FPA Section 215. First, it is not clear that NERC or FERC has jurisdiction under FPA Section 215 to require generation facilities that have not actually reached commercial operation to be subject to reliability standards. Section 215(a)(2) of the FPA defines the “Electric Reliability Organization” as “the organization certified by the Commission ... the purpose of which is to establish and enforce reliability standards for the bulk-power system, subject to Commission review.” Further, (a)(3) provides that “The term ‘reliability standard’ means a requirement, approved by the Commission under this section, to provide for reliable operation of the bulk-power system. The term includes requirements for the operation of existing bulk-power system facilities ... the design of planned additions or modifications to such facilities to the extent necessary to provide for reliable operation of the bulk-power system ....” Thus, under Section 215 NERC can develop reliability standards that address requirements for existing bulk-power system facilities (i.e., facilities that have reached “commercial operation”) and for the design of planned additions or modifications. It is logical to interpret the phrase “design of new facilities” as meaning that new facilities must be designed to comply with existing reliability standards. However, it is not clear that this provision should be interpreted as requiring that a generating facility that has not yet reached commercial operation should be subject to reliability standards (including audit and penalties). Therefore, the GO with the existing generation facilities should not be required to incorporate the proposed generation facility into its Facility connection requirements before the proposed generation facility is subject to NERC or FERC jurisdiction. (b) FERC’s</p>

Organization	Yes or No	Question 9 Comment
		<p>interconnection policy. In addition, the revised FAC-001 would appear to place restrictions on interconnection customers in contravention of Order Nos. 2003 and 2006 (Standard Large and Small Interconnection Procedures and Agreements). FERC was very concerned about the ability of interconnection customers to interconnect their generating facilities and gave them a fair amount of flexibility. However, this revised FAC-001 would appear to restrict some of this flexibility.(i) Order No. 2003 gives the interconnection customer the ability to terminate a proposed interconnection on ninety days notice. Therefore, the interconnection customer is not required to build the facility. However, this revised FAC-001 appears to assume that the interconnection customer does not have this flexibility. What if the interconnection customer (the GO building a new generator on its site or the third party building a new generation facility) decides to terminate the Large Generator Interconnection Agreement (LGIA) or not proceed with the generation facility? In such event, the GO may be required to revert to its previous Facility connection requirements in order to accommodate the original configuration. (ii) The LGIA permits modifications to the proposed interconnection. How would this affect the Facility connection requirements? How long would the GO have to revise its Facility connection requirements? In the event that there is a single modification, or perhaps multiple modifications, how does the GO stay in compliance with this standard? (iii) FAC-001-1, R4 provides that each GO with Facility connection requirements and each TO shall maintain Facility connection requirements and make documentation of these requirements available to users of the Transmission System upon request. However, Large Generator Interconnection Procedures (LGIP), Section 3.4 requires the posting of certain interconnection information but the identity of the interconnection customer is not to be disclosed (unless it is an Affiliate). Requirement R4 would appear to potentially require disclosure of information and (more importantly) of the interconnection customer's identity in contravention of the requirements in Order No. 2003 and the LGIP.(c) OATT requirements. The definition of “applicable Generator Owner” (Section 4.2.1) and Requirement R2 provide that the GO will have an executed Agreement to evaluate the impact of interconnecting a new facility to the GO’s</p>

Organization	Yes or No	Question 9 Comment
		<p>existing generation facility. This statement is ambiguous. This statement could be understood to mean that the GO of the existing generation Facility will enter into an Agreement with the GO proposing to interconnect and the existing GO will evaluate the impact of the proposed interconnection. However, requests to interconnect new generation are processed under an OATT. In that case, it would be the Transmission Provider (not the existing GO) that would evaluate the impact of interconnecting the new facility. Thus, the language in FAC-001-1 would need to be revised to clarify that the owner of the new facility will need to interconnect under the OATT of an appropriate Transmission Provider (i.e., the Transmission Provider to which the existing GO is interconnected, not with the existing GO). Therefore, the owner of the new facility will most likely be the entity with the executed Agreement (with the Transmission Provider). Another consideration is that the existing GO could be developing a merchant transmission line. In that case, the existing GO would need to evaluate whether it needs have its own OATT and OASIS. In that case, the new generator owner would be interconnecting to the existing GO. However, the existing GO's line would not be a generator tie-line. This issue is not clear from the draft standard. (2) The following are suggested changes to FAC-001-1. (a) We recommend the Purpose statement be revised to state, "To avoid adverse impacts on BES reliability..." (b) It is unclear in Applicability section 4.2.1 that the term "Agreement" means that the GO has an executed agreement with a TO/TSP or that the GO and the third party have an executed agreement. Without further explanation, the capitalized term "Agreement" has the effect of introducing confusion. If the SDT does not intend to propose a new addition to the NERC Glossary of Terms, it should use the lower case term, "agreement." With respect to the capitalized term, "Transmission System," the SDT should consider clarifying if it intends to propose adding this to the Glossary. (3) Effect of the proposed revisions to FAC-001-1 on FAC-002-1.(a) As drafted, there are scenarios under which a new GO may attempt to interconnect to an existing GO even though, as explained above, the interconnection should actually be done to the appropriate Transmission Provider. If the appropriate Transmission Provider is not included in the evaluation of the interconnection various types of harm may occur. In</p>

Organization	Yes or No	Question 9 Comment
		<p>such event, the TPs and PAs should be indemnified from any liability with respect to performance of the evaluations required by FAC-002. (b) FAC-001 and FAC-002 should be revised to be clear that the existing GO and any new GOs must coordinate any interconnection with the appropriate Transmission Provider, TP and PA.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees this is a complex issue and did its best to outline how it arrived at its position in the document titled "<a href="#">Technical Justification: FAC-001-1.</a>"</p> <p>The SDT points out that if the GO is part of an RTO, then the GO will be coordinating any interconnection studies either directly or indirectly with the RTO interconnection process. If the GO is not part of an RTO, then the GO will be required to follow the pro forma interconnection procedures from Order 2003. The Order 2003 procedures require the GO to coordinate any studies with an affected system which could include Facilities owned by one, or more, TO on the other side of the GO's existing point of interconnection.</p> <p>The SDT does agree that upon interconnection of a third party, other standards or registrations may apply as appropriate.</p>		
PSEG	Yes	<p>We believe that the Ad Hoc Group's suggestions regarding PRC-005-1 - Transmission and Generation Protection System Maintenance were correct and that this standard should have been modified by the SDT in a manner similar to the way the SDT modified PRC-004-2. This would require modifying R1 and R2 in PRC-005-1a (the current version) to include protection systems in the generator interconnection Facility. In addition, the SDT should evaluate modifying PER-002-0 - Operation Personnel Training. In doing so the SDT completes one of the open FERC directives in Order 693. Paragraph 1363 addresses GOP training:1363. Further, the Commission agrees with MidAmerican, SDG&amp;E and others that the experience and knowledge required by transmission operators about Bulk-Power System operations goes well beyond what is needed by generation operators; therefore, training for generator operators need not be as extensive as that required for transmission operators. Accordingly, the training requirements developed by the ERO should be tailored in their scope, content and duration so as to be appropriate to generation operations personnel and the objective of promoting system reliability. Thus, in addition to modifying the Reliability Standard to identify generator operators as applicable entities, we direct the ERO to develop specific Requirements addressing the scope,</p>

Organization	Yes or No	Question 9 Comment
		content and duration appropriate for generator operator personnel.
<p><b>Response:</b> Thank you for your comment. The SDT agrees with the comment concerning PRC-005-1a and will be initiating a process to make that change.</p> <p>With respect to PER-002-0, the SDT continues to find that there are no clear and technical reliability reasons that support adding GOP requirements to any PER standard <i>based on the fact that the GOP operates a generator interconnection Facility</i>. While the SDT does not necessarily disagree that some training requirements for GOPs may be necessary, it does not see how these changes fall within its scope.</p>		
Ingleside Cogeneration LP (Occidental Chemical)		Ingleside Cogeneration LP believes that the set of standards proposed by the SDT is technologically accurate and defensible. The open issue is if the ERO and FERC expect more standards to be included - whether based upon sound reliability principals or not.
<p><b>Response:</b> Thank you for your comment and support.</p>		
Western Electricity Coordinating Council		Please see response to question #7.
<p><b>Response:</b> See the SDT's response to Question 7.</p>		
Texas Reliability Entity		See comment 6.
<p><b>Response:</b> See the SDT's response to Question 6.</p>		
SERC OC Standards Review Group		See comments on Questions 7 & 8.
<p><b>Response:</b> See the SDT's responses to Questions 7 and 8.</p>		
Florida Municipal Power		see response to Question 7

Organization	Yes or No	Question 9 Comment
Agency		
<p><b>Response:</b> See the SDT’s response to Questions 7.</p>		
Manitoba Hydro		<p>The revision to FAC-001-1 R2 may be problematic, depending on what was intended. Under the revised requirement, the obligation to comply is dependent on the execution of an agreement to evaluate reliability impacts under FAC-002-1. However, FAC-002-1 does not clearly require the execution of an agreement by the Generator Owner. FAC-002-1 only requires the Generator Owner to “coordinate and cooperate on its assessments with its Transmission Planner and Planning Authority”. Accordingly if a Generator Owner coordinates without executing an agreement to perform an assessment, compliance with FAC-001 R1 will not be required.</p>
<p><b>Response:</b> Thank you for your comment. The SDT agrees this is a complex issue and did its best to outline how it arrived at its position in the document titled “<a href="#">Technical Justification: FAC-001-1</a>.”</p>		
Southwest Power Pool Regional Entity		<p>The SDT should consider the standards that FERC identified in 135 FERC ¶ 61,241.</p>
<p><b>Response:</b> Thank you for your comment. The NERC <a href="#">Standard Processes Manual</a> does not address the issue of how to deal with FERC Orders (that don’t include explicit directives). However, based on your and other comments, we have expanded our technical justification document (posted under “Supporting Materials”) to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>		

## 10. Do you have any other comments that you have not yet addressed? If yes, please explain.

### Summary Consideration:

The SDT thanks all stakeholders for their comments. In this section, many stakeholders offered supportive comments. Others offered a variety of suggestions, many of which were addressed.

One commenter suggested that the word “system” should not be capitalized in “Transmission System” in FAC-001-1 because the NERC glossary term “System” does not apply within the standard. The SDT agreed with this suggestion, and changed all references to “Transmission System” to “interconnected Transmission systems” for consistency in other parts of the standard and with FAC-002. Another commenter pointed out that “within” should be “with” in Section 4.2.1, and the SDT made this change.

A few commenters repeated their concern with the exclusion in FAC-003 for GOs with specific kinds of interconnection Facilities. For these commenters, the SDT reemphasized that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.

To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: ~~“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”~~

Some stakeholders offered comments that were outside the scope of this SDT’s work. A few offered comments on the overall strategy of the FAC-003-2 standard, and the SDT informed them that these comments should have been submitted when the Project 2007-7 Vegetation Management posted its work for comment.

One commenter suggested changes to the VSLs for R1 and R4. Because the SDT made no changes to these requirements, modifying the VSLs for these requirements is outside the scope of this team. This item will be added to the issues database.

Several stakeholders suggested the SDT review the standards cited in the draft NERC directive regarding generator interconnection leads and in the FERC orders regarding Milford and Cedar Creek. The SDT continues to find clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards and not requiring the GO or GOP to register as a TO or TOP. However, to address stakeholder concern, the SDT has expanded its

technical justification document (posted under “Supporting Materials”) to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive.

Organization	Yes or No	Question 10 Comment
Gainesville Regional Utilities	Negative	<p>1. It would seem that the impetus for FAC003 is to eliminate vegetation related outages within the rights-of-way as defined and subject to the exclusions as stated in footnote</p> <p>2. Thus the requirement is to manage the ROW to prevent vegetation related sustained outages with the measure being no outages. With grow-ins and fall-ins from within the defined ROW being controllable factors. 2. Including encroachments leaves the door open for fines to be imposed with no actual outage(s) having occurred. This may be like being found guilty of a crime that has not yet taken place.</p> <p>3. Combine vegetation related sustained outages by “grow-ins” and “blowing together of lines and vegetation located inside the ROW” as one item as they are both consequences of the growth of vegetation either vertically and horizontally.</p> <p>4. Leave vegetation related sustained outages by “fall-in” as a standalone as this will be related to structural problems occurring from a variety of sources.</p> <p>5. Combine R3 and R7 to R1 (development and implementation of a Transmission Vegetation Management Plan which shall include documented maintenance strategies or procedures or processes or specifications, delineation of an annual work plan and completion of same). Thus this would be the competency based requirements as a program without execution is meaningless.</p> <p>6. R1 and R2 become R2 and R3.</p>
<p><b>Response:</b> Thank you for your comment. This is outside the scope of the <a href="#">SAR</a> for this project. This SDT did review comments submitted as part of the <a href="#">Project 2007-07</a> effort and found that a response to this comment was provided. No change made.</p>		
Northern Indiana Public Service Co.	Negative	Ballot needs work

Organization	Yes or No	Question 10 Comment
<p><b>Response:</b> The SDT does not understand your specific concern.</p>		
<p>PSEG Energy Resources &amp; Trade LLC, PSEG Fossil LLC, Public Service Electric and Gas Co.</p>	<p>Negative</p>	<p>FAC-003-X is not applicable since FAC-003-2 was approved by the BOT on November 4, 2011</p>
<p><b>Response:</b> Thank you for your comment. You are correct that in November 2011, NERC’s Board of Trustees adopted FAC-003-2 – Transmission Vegetation Management (developed under Project 2007-07 Vegetation Management). Based on this approval, NERC staff will file FAC-003-2 with the applicable regulatory authorities. The Project 2010-07 SDT will move forward with ballots for both FAC-003-3 (proposed changes to the BOT-adopted FAC-003-2) and FAC-003-X (proposed changes to the FERC-approved FAC-003-1) with the intention of eventually only filing FAC-003-3. The SDT has elected to carry FAC-003-X through to ballot because if FAC-003-2 and FAC-003-3 are not approved by FERC, the SDT wants to be ready to file FAC-003-X to ensure that there is a functional entity responsible for managing vegetation on the piece of line commonly known as the generator interconnection Facility.</p> <p>Note that for its recirculation ballot, the SDT will be balloting <b>both</b> FAC-003-3 and FAC-003-X, but stakeholders should <b>not</b> vote as though they are choosing one or the other. As stated above, the SDT plans to present FAC-003-3 alone to NERC’s Board of Trustees, but it wants to have FAC-003-X ready to submit to the Board if, for some reason, neither FAC-003-2 nor FAC-003-3 are approved by FERC. Members of the ballot body should vote on the merits of each version of FAC-003 individually. <b>In other words, stakeholders who support adding GOs to the applicability of FAC-003 should vote in the affirmative for both FAC-003-3 and FAC-003-X.</b></p>		
<p>Hydro-Quebec TransEnergie</p>	<p>Negative</p>	<p>Hydro-Quebec TransEnergie is casting a negative vote again because our comment from the last posting was not considered in the current draft: The minimum frequency of Vegetation Inspection should be based upon an average growth rates of smaller regions than all North America. Example, above the latitude of 50 degrees North, the vegetation growth rates is limited. The Vegetation Inspection frequency in the territories located above 50 degrees of latitude must be relaxed to 3 years.</p>
<p><b>Response:</b> Thank you for your comment. This is outside the scope of the <a href="#">SAR</a> for this project. This SDT did review comments submitted as part of the <a href="#">Project 2007-07</a> effort and did not find this comment had been submitted as part of that project effort. No changes made.</p>		

Organization	Yes or No	Question 10 Comment
New Brunswick System Operator	Negative	Since NBSO voted 'affirmative' for FAC-003-3, it makes sense for us to vote 'negative' for this standard.
<p><b>Response:</b> Thank you for your comment. In November 2011, NERC’s Board of Trustees adopted FAC-003-2 – Transmission Vegetation Management (developed under Project 2007-07 Vegetation Management). Based on this approval, NERC staff will file FAC-003-2 with the applicable regulatory authorities. The Project 2010-07 SDT will move forward with ballots for both FAC-003-3 (proposed changes to the BOT-adopted FAC-003-2) and FAC-003-X (proposed changes to the FERC-approved FAC-003-1) with the intention of eventually only filing FAC-003-3. The SDT has elected to carry FAC-003-X through to ballot because if FAC-003-2 and FAC-003-3 are not approved by FERC, the SDT wants to be ready to file FAC-003-X to ensure that there is a functional entity responsible for managing vegetation on the piece of line commonly known as the generator interconnection Facility.</p> <p>Note that for its recirculation ballot, the SDT will be balloting <b>both</b> FAC-003-3 and FAC-003-X, but stakeholders should <b>not</b> vote as though they are choosing one or the other. As stated above, the SDT plans to present FAC-003-3 alone to NERC’s Board of Trustees, but it wants to have FAC-003-X ready to submit to the Board if, for some reason, neither FAC-003-2 nor FAC-003-3 are approved by FERC. Members of the ballot body should vote on the merits of each version of FAC-003 individually. <b>In other words, stakeholders who support adding GOs to the applicability of FAC-003 should vote in the affirmative for both FAC-003-3 and FAC-003-X.</b></p>		
PSEG Energy Resources & Trade LLC/ Public Service Electric and Gas Co./ PSEG Fossil LLC	Negative	The phrase “generator Facility” should be “generator Transmission Facility,” and the phrase “Transmission System” should be “Transmission system.”
<p><b>Response:</b> Thank you for your comment. We agree with your change to “Transmission system” but not to the addition of “Transmission” in the phrase “generator Facility.” The SDT does not agree with labeling a GO’s Facility as “Transmission,” in part because in some areas (like Texas), GOs, by statute, can’t own Transmission. It was also brought to the SDT’s attention that in most cases, the Facility in question is referred to as the Interconnection Facility in documents filed by the GO with FERC. Therefore, the SDT intentionally modified language so that a Facility owned by a generation entity did not contain the term “Transmission.”</p>		
SERC Reliability Corporation	Negative	There should not be a weak link under the standard. This proposed revision would create a weak-link where a portion of the otherwise covered right-of-way would be exposed.

Organization	Yes or No	Question 10 Comment
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled "<a href="#">Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface</a>," the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>"Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are..."</del>.</p>		
<p>New York State Department of Public Service/ National Association of Regulatory Utility Commissioners</p>	<p>Negative</p>	<p>Understand that there is an open issue regarding the availability of generation compliance documentation that needs to be satisfactorily addressed.</p>
<p><b>Response:</b> The SDT does not understand your specific concern.</p>		
<p>Infigen Energy US</p>	<p>Affirmative</p>	<p>Infigen supports the efforts of the SDT to ensure that Protection System Misoperations affecting the reliability of the BES are thoroughly analyzed and mitigated. Generator Owners are already analyzing Misoperations as/if they occur, and are employing Corrective Action Plans to avoid future Misoperations. We support maintaining "reasonable and appropriate" preventative measures and risk assessment tools to ensure that misoperations are evaluated and corrected expediently.</p>
<p><b>Response:</b> Thank you for your comment and support.</p>		
<p>PPL EnergyPlus LLC/PPL NERC Registered Affiliates</p>	<p>Affirmative</p>	<p>PPL Generation, LLC, on behalf of its NERC-registered subsidiaries, appreciates the effort by the Standard Development Team to address the GO-TO interface issues in a manner that enhances the reliability of the BES without adding unnecessary burden on Generators. As registered GOs/GOPs, the PPL Generation registered entities agree with the changes made by the SDT to these three standards. To the extent that GOs/GOPs are required to register as TOs/TOPs, PPL Generation would have</p>

Organization	Yes or No	Question 10 Comment
		significant concerns with meeting the compliance requirements applicable to TOs in the standards included in the scope of this Project, as well as other TO/TOP requirements throughout other NERC standards.
<b>Response:</b> Thank you for your comment and support.		
SERC Reliability Corporation	Affirmative	The Generator Owner may be required to self-certify and report periodically to the region whether they have become applicable to the standard.
<b>Response:</b> Thank you for your comment and support.		
Southwest Transmission Cooperative, Inc./ ACES Power Marketing Standards Collaborators/ ACES Power Marketing	Affirmative	The modifications to PRC-004-2.1 R2 could be interpreted as requiring the GO to analyze Protection System Misoperations on the generator interconnection Facility even if it does not own the Facility. We suggest modifying the requirement as shown below to address this issue.”The Generator Owner shall analyze Protection System Misoperations on its generator and generator interconnection Facility that it owns ...”
<b>Response:</b> Thank you for your comment. The SDT believes that the language makes clear that an entity need only be concerned with the Elements or Facilities that it owns.		
SERC Reliability Corporation	Affirmative	With the understanding the Generator Interconnection FACilities will be grouped with Transmission Protection Systems for analysis at the regional level.
<b>Response:</b> Thank you for your comment and support.		
Entergy Services		We suggest that the Vegetation Management Standards should be consistent for both the TO and GO facilities. We would also like to suggest an additional Recommendation for added clarity regarding Category 3 Outages (Off-ROW Fall-in Outages). We understand that the Category 3 Outages are not a violation of the Standard, but we feel that there should be some level of comment added within the Standard clearly stating that these Outages are “Reportable Only” during the

Organization	Yes or No	Question 10 Comment
		<p>Quarterly Outage reports to the RE's, and that there are no associated violations/sanctions for this Category Of Outage, and that an Off-ROW fall-in outage would not be considered an encroachment into the MVCD in any way. The Technical Reference Document does a good job of clearly stating this in the Introduction on Page 5 ("This standard is not intended to address outages such as those due to vegetation fall-ins or blow-ins from outside the Right-of-Way, vandalism, human activities or acts of nature.") and we feel that this should also be stated clearly in the Standard.</p>
<p><b>Response:</b> Thank you for your comment. As it discusses in the document titled "<a href="#">Technical Justification Project 2010-07 Generator Requirements at the Transmission Interface</a>," the SDT recognizes that in many cases, generation Facilities are either (1) staffed and the overhead portion is within line of sight or (2) the overhead Facility is over a paved surface. Stakeholders have generally supported the rationale exempting these Facilities because incorporating them into FAC-003 would offer no reliability benefit. The SDT and industry comments support the position that these qualifiers represent a reasonable and appropriate risk prevention approach.</p> <p>To clarify the exemption, the SDT has modified 4.3.1 to include a reference to line of sight: <del>“Overhead transmission lines that extend greater than one mile (1.609 kilometers) beyond the fenced area of the generating switchyard or do not have a clear line of sight from the switchyard fence to the point of interconnection and are...”</del>.</p> <p>The remainder of your comment is outside the scope of this SDT.</p>		
Southern Company		<p>We agree with the 2010-17 Standard Drafting Team's conclusion to not modify other standards such as those mentioned on page 4 of the Technical Justification document. In addition, we wish to provide the following support for exclusion of these specific standards. Southern Company believes NERC's Project 2010-07 SDT must challenge making revisions to the standards included in the FERC order on Cedar Creek and Milford. (This order supports NERC's requirement for those entities to register as a TO/TOP due to their ownership of generator interconnection circuits &gt; 100kV.) We believe there are clear technical and reliability-based reasons that support not adding GO and GOP requirements to these standards and not requiring the GO or GOP to register as a TO or TOP. Furthermore, we also believe there are clear distinctions between GO/GOP responsibilities and TO/TOP responsibilities that must be</p>

Organization	Yes or No	Question 10 Comment
		<p>maintained to ensure BES reliability. Revising standards to assign TO/TOP responsibilities to a GO/GOP or requiring a GO/GOP to register as a TO/TOP because of generator interconnection circuits &gt; 100kV will reduce the clarity of these responsibilities. We have provided specific comments on each standard below:</p> <p>EOP-005-1 R1, R2, R6, R7R1 and R2 require each TOP to have and maintain a system restoration plan. R6 requires the TOP to train its operating personnel in implementing this plan. R7 requires the TOP to verify its restoration plan by actual testing or simulation. These requirements are clearly the role and responsibility of the TOP, not a GO/GOP who happens to have generator interconnection facilities in the TOP's control area. The GOP's roles and responsibilities are clearly and appropriately addressed EOP-005-2. The presence of a generator interconnection circuit &gt; 100kV that happens to be owned by the GO instead of the TOP fundamentally does not change the roles and responsibilities of the TOP or the GOP. Thus, no changes due to EOP-005 are needed.</p> <p>FAC-014-2, R2: FAC-014-2 R2 states "The Transmission Operator shall establish SOLs (as directed by its Reliability Coordinator) for its portion of the Reliability Coordinator Area that are consistent with its Reliability Coordinator's SOL Methodology." FAC-014-2 R2 should not be revised to include GOPs. The GO is required by FAC-008-1 R1 and FAC-009-1 (FERC approved version) and pending FAC-008-3 R3 and R6 (FAC-008-3 filed with FERC for approval) to document the Facility Ratings for a GO-owned generator interconnection circuit &gt;100kV. The established Facility Rating must respect the most limiting applicable equipment rating in the circuit and must consider operating limitations and ambient conditions. The thermal or ampere rating of this circuit would equal its ampere operating limit and should be conveyed by the GO to the GOP if they are not the same entity. The operating voltage limits for this circuit are established by the applicable TO/TOP, not the GO or GOP. Therefore, we believe adding the GO to FAC-014-2 R2 would be redundant.</p> <p>PER-003-1 R2, R2.1, R2.2PER-003-1 R2 and its sub-requirements state:"R2. Each Transmission Operator shall staff its Real-time operating positions performing</p>

Organization	Yes or No	Question 10 Comment
		<p>Transmission Operator reliability-related tasks with System Operators who have demonstrated minimum competency in the areas listed by obtaining and maintaining one of the following valid NERC certificates (1 ) : [Risk Factor: High][Time Horizon: Real-time Operations]: R2.1. Areas of Competency R2.1.1. Transmission operations R2.1.2. Emergency preparedness and operations R2.1.3. System operations R2.1.4. Protection and control R2.1.5. Voltage and reactive R2.2. Certificates o Reliability Operator o Balancing, Interchange and Transmission Operator o Transmission Operator This requirement is specifically for TOPs. Personnel training for GOPs needs to be addressed separately and not mingled with responsibilities of the TOP. The GOPs role in supporting BES reliability needs to be clearly understood and defined prior to establishing training requirements in the standards.</p> <p>PRC-001-1, R2, R2.2, R4, R6Generator Operators (GOPs) and the scope of protection equipment for generation interconnection Facilities are already appropriately accounted for in this standard in requirement R2 and sub-requirement R2.2 The language used in requirement R2 which applies to the GOP uses the general terms “relay or equipment failures” which would include not only generator relaying, but generator interconnection relaying in the GOPs scope as well. The GOP is required to notify the TOP and Host BA in R2.1 “if a protective relay or equipment failure reduces system reliability.” Requirement R2.2 requires the affected TOP to notify its RC and affected TOPs and BAs. Thus, applying R2.2 to a GOP would be redundant to R2.1. Requirement R4 states, “Each Transmission Operator shall coordinate protection systems on major transmission lines and interconnections with neighboring Generator Operators, Transmission Operators, and Balancing Authorities.” A generator interconnection tie line does not constitute a ‘major tie line” or major “interconnection with neighboring GOPs, TOPs, and BAs.” Thus, R4 should not be revised to include GOPs. If a GO exists within NERC that does own such interconnection facilities, the responsibility for coordination of protection systems on such a line or interconnection should be the responsibility of the TOP in that area, not the GO/GOP. This may require formal agreements between the TO/TOP and GO/GOP, since the GO may own protection equipment on his end. The same logic applies to</p>

Organization	Yes or No	Question 10 Comment
		<p>R6. R6 states, “Each Transmission Operator and Balancing Authority shall monitor the status of each Special Protection System in their area, and shall notify affected Transmission Operators and Balancing Authorities of each change in status.” This is clearly the responsibility of the TOP and/or BA, not a GO/GOP who happens to have generator interconnection facilities in the area. An SPS function by definition is to maintain BES reliability. If a GO/GOP has equipment within the equipment scope of a Special Protection System (SPS), responsibility for monitoring the SPS should be conveyed in a formal agreement as appropriate.</p> <p>TOP-001-1 R1 Requirement R1 states, “Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies.” This is clearly the responsibility of the TOP, not a GO/GOP who happens to have generator interconnection facilities in the TOP’s area. Thus, R1 should not be applied to a GO/GOP who owns or operates generator interconnection facilities. Furthermore, TOP-001-1 R3 (proposed to be covered in the future in the proposed IRO-001-2 R2 and R3) appropriately requires the GOP to comply with reliability directives issued by the TO “unless such actions would violate safety, equipment, regulatory or statutory requirements.” These requirements effectively give the TOP the necessary decision-making authority over operation of all generator Facilities up to the point of interconnection. They also give the GOP the necessary authority to take appropriate actions to ensure safety and protection of the GO’s equipment. Thus, no changes to TOP-001-1 are necessary.</p> <p>TOP-004-2 R6, R6.1, R6.2, R6.3, R6.4 Requirement R6 and its sub-requirements state: “R6. Transmission Operators, individually and jointly with other Transmission Operators, shall develop, maintain, and implement formal policies and procedures to provide for transmission reliability. These policies and procedures shall address the execution and coordination of activities that impact inter- and intra-Regional reliability, including: R6.1. Monitoring and controlling voltage levels and real and reactive power flows. R6.2. Switching transmission elements. R6.3. Planned outages of transmission elements. R6.4. Responding to IROL and SOL violations.” These are clearly</p>

Organization	Yes or No	Question 10 Comment
		<p>the responsibility of the TOP, not a GO/GOP who happens to have generator interconnection facilities in the TOP’s area. Thus, these requirements should not be applied to a GO/GOP who owns or operates generator interconnection facilities. The same logic applies here as stated above in our discussion on TOP-001-1. We believe it is inappropriate and would be adverse to BES reliability to apply these requirements to a GOP. TOP-004-2 effectively gives the TOP the necessary decision-making authority over operation of all generator Facilities up to the point of interconnection. They also give the GOP the necessary authority to take appropriate actions to ensure safety and protection of the GO’s equipment, such as opening high voltage generator output breakers when required to protect the unit. Thus, no changes to TOP-004-2 are necessary. TOP-006-2 R3 Requirement R3 states, “R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel. The intent of this requirement when applied to a GOP is already addressed in PRC-001-1 R1 which states, “Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area.” Thus, no change to TOP-006-2 is necessary. ”</p>
<p><b>Response:</b> Thank you for your comment and support. We agree that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards and not requiring the GO or GOP to register as a TO or TOP. We have expanded our technical justification document (posted under “Supporting Materials”) to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive, and many of your explanations are included therein.</p>		
<p>American Wind Energy Association</p>		<p>AWEA appreciates the opportunity to submit these comments on the NERC Project 2010-07. AWEA supports the general direction indicated by both the Generator Requirements at the Transmission Interface Ad Hoc Group and the Project 2010-07 Standards Development Team. We agree with the sentiments from both groups that a GO or GOP that also owns or operates a generator lead line should not be required to register as a TO or TOP strictly because they own or operate a generator lead line. We also agree that requiring these GO/GOPs to comply with all the TO/TOP standards</p>

Organization	Yes or No	Question 10 Comment
		<p>would have little effect on or benefits to reliability of the Bulk Electric System, and could even detract from it. AWEA supports the intent and goal of the SDT to ensure that all generator-owned Facilities are appropriately covered under NERC’s Reliability Standards. We also agree with the SDT that while many GO/GOPs operate Elements and Facilities that might be considered by some entities to be Transmission, these are most often radial Facilities that are not part of the integrated grid, and as such should not be subject to the same standards applicable to TO/TOPs, who own and operate Transmission Elements and Facilities that are part of the integrated grid. Therefore, we support the SDT’s approach of identifying a very limited number of TO/TOP standards, such as FAC-001 and FAC-003, which should also apply to GO/GOP owners of generator lead lines. We would be concerned, however, if additional requirements were added beyond FAC-001, FAC-003, and PRC-004. Consideration of any additional standards with respect to generator lead lines should be done on a standard-by-standard basis, reviewing the applicability of each standard as well as the impact on the reliability of the Bulk Electric System.</p>
<p><b>Response:</b> Thank you for your comment and support.</p>		
<p>Bonneville Power Administration</p>		<p>BPA thanks you for the opportunity to comment on Project 2010-07, Generator Requirements at the Transmission Interface. BPA stands in support of the proposed revisions and has no comments or concerns at this time.</p>
<p><b>Response:</b> Thank you for your comment and support.</p>		
<p>Constellation Power Source Generation</p>		<p>Constellation appreciates and supports the work of the standard drafting team. We recognize the significant time invested by technical experts from industry to consider the appropriate application of reliability standards to address concerns raised about coverage of transmission at the generator interface. The drafting team analysis identified the standards in need of revision to appropriately address the reliability concerns raised. While the revision process focuses on specific standards, it is important to consider the reliability questions in the context of the full complement</p>

Organization	Yes or No	Question 10 Comment
		<p>of reliability standards that apply to entities. For instance, the following standards already apply to generators and relate to the reliability considerations around transmission at the generator interface:</p> <ul style="list-style-type: none"> <li>o PRC-001-1 addresses coordination of protection system components by requiring all GOs to ensure coordination of their protection system with interconnected parties. Further, FAC-002 requires that all new facilities undergo reviews by the TOP, BA, etc.</li> <li>o PRC-004-1 requires all GOs to ensure that they analyze all misoperations on their protection system which would include the protection of the tie line.</li> <li>o TOP standards applicable to GOs aid coordination between a GO and a TO with regards to the generator tie line by requiring all GOs to coordinate all maintenance and emergency outages (both forced and planned) with all applicable interconnected parties. Further, all ISO procedures require the same of GOs.</li> <li>o RC, TOP and/or BA certified operators control and are responsible for overseeing that transmission. According to the NERC functional model, a Generator Operator is defined as “operat(ing) generating unit(s) and perform(ing) the functions of supplying energy and reliability related services.” Given this limited scope, the Generator Operator (GOP) cannot be considered as operating on the same level as the Reliability Coordinator, Transmission Operator or Balancing Authority when it comes to real time information on the status of the BES. The GOP does not monitor and control the BES, rather the GOP only monitors and controls the generators that it operates and relays information to other operating entities.</li> <li>o IRO and TOP standards applicable to GOs include tie lines in their pool of resources to alleviate operational emergencies by requiring all GOs to operate as directed by their TOP, BA, or RC as directed and must render emergency assistance.</li> <li>o FAC-8 and FAC-9 manage rating methodology consistency by requiring all GOs to develop a methodology to rate all equipment, and that the RC has the authority to challenge the GO on that methodology. The onus is on the GO to either change their methodology and rating accordingly, or provide a technical justification as to why</li> </ul>

Organization	Yes or No	Question 10 Comment
		they cannot adopt the changes. Further, a generator will never be limited by its tie line, as a generator’s profits are directly tied to its output. Therefore no generator would limit its facility to the equipment that is delivering that output.
<p><b>Response:</b> Thank you for your comment and support. We agree that it is important to consider the reliability questions in the context of the full complement of reliability standards, and we have endeavored to make these broader connections clear in our revised technical justification document (posted under “Supporting Materials”). That document has been expanded to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive, and the kinds of further justifications you also provided are included therein. After another thorough review of these standards, the SDT continues to believe that there are clear and technical reliability-based reasons that support not adding GO and GOP requirements to these standards.</p>		
Cowlitz County PUD		In answer to the SDT request for feedback on FERC's Order concerning Cedar Creek and Milford, the District finds no technical reason to add any of the listed standard requirements, and struggles to understand why FERC would even consider this listing as applicable.
<p><b>Response:</b> Thank you for your comment and support.</p>		
Southwest Transmission Cooperative, Inc.		In section 4.2.1 of the Applicability Section, “within” should be “with”. Because NERC’s Glossary of Terms establishes that an Agreement can be verbal and not enforceable by law, section 4.2.1 should be further modified to clarify that it is a legally enforceable and fully executed Agreement. The language in R3 in parenthesis after Generation Owner should be modified to “once required by Requirement R2”. This makes it clearer that R3 does not apply until the GO has an executed Agreement to evaluate a request by a third part to interconnect.
<p><b>Response:</b> Thank you for your comment. We agree that “within” should be “with.” The SDT chose not to adopt the second recommendation as the requirement already contains the term “executed.” The SDT also chose not to adopt the third recommendation as the requirement already contains the parenthetical (in accordance with Requirement R2) which we feel is synonymous with the comment.</p>		

Organization	Yes or No	Question 10 Comment
Manitoba Hydro		Manitoba Hydro would also like to point out that if the redline changes are implemented, it will greatly increase the complexity of coordination required under FAC-002-1 for Transmission Planners/Planning Authorities.
<p><b>Response:</b> Thank you for your comment. The SDT agrees this is a complex issue and did its best to outline how it arrived at its position in the document titled "<a href="#">Technical Justification: FAC-001-1.</a>"</p>		
Compliance & Responsibility Organization		<p>NextEra Energy, Inc. (NextEra) appreciates the work of the Project 2010-07 Generator Requirements at the Transmission Interface Standard Drafting Team (SDT) on a subject that NextEra has a significant interest in resolving. In fact, NextEra has been a member of the SDT and an active observer. Given the recent events - such as (a) the North American Electric Reliability Commission's draft interim directive; (b) the denial of the Milford and Cedar Cheek requests for reconsideration at the Federal Energy Regulatory Commission (FERC) and (c) the record in this case which, at times, suggests the SDT needs to more formally consider the Milford and Cedar Cheek Reliability Standards - NextEra requests that SDT more formally consider the merits of each Reliability Standard adopted the Milford and Cedar Cheek FERC orders and the NERC draft interim directive. Although NextEra does not condone the manner in which NERC issued the interim draft directive and stated so in its comments to NERC on the interim draft directive, NextEra's overarching objective on this issue is to bring a uniform, fair and technically supported approach that resolves the interface issue. Thus, NextEra requests that the SDT (prior to proceeding any further or any additional comments or votes on specific draft Reliability Standards) issue a technical paper that point-by-point addresses the merits of including the Reliability Standards set forth in the FERC Orders and NERC's draft interim directive, and request stakeholder, including NERC staff, comment. For example, this technical paper would likely the merits of NERC's draft interim directive not requiring NERC-certified operators (but require training of interface operators), while FERC's orders require NERC-certified operators. While NextEra does not agree five days of training is necessary for an interface operator, as the draft interim directive appears to propose, NextEra does</p>

Organization	Yes or No	Question 10 Comment
		<p>believe a technical case can be made why NERC-certification is not required, and that some degree of training related to the applicable Reliability Standards is reasonable. Similar, on FAC-003 (as well as several other Standards), the draft interim directive proposes a slightly different approach than the SDT. NextEra would rather these approaches reconciled than be in conflict, with the potential for continued conflict as the SDT's work product proceeds. Further, NextEra requests that the SDT's review the technical merits of NERC's proposed criteria to determine what generator transmission lead is required to comply with additional Reliability Standards. As noted, above, this technical paper should be posted for stakeholder, including NERC staff, comment. Accordingly, while NextEra would have preferred that NERC and the Regional Entities express there interim draft directive approach on the record in this proceeding, NextEra believes it is appropriate for the SDT to draft a comprehensive technical paper that, with an open approach, considers the inclusion of additional Reliability Standards, if appropriate, as a way of building lasting support for its approach.</p>
<p><b>Response:</b> Thank you for your comment and support. We certainly agree that is important for NERC staff and the SDT to continue to work together to try to develop a mutually agreed upon solution for dealing with this reliability gap, and to a certain extent, the SDT has tried to provide the kind of technical paper you suggest in its modified technical justification document (posted under "Supporting Materials"), which has been expanded to include any standard or requirement cited by FERC in its Milford/Cedar Creek orders or by NERC in its draft compliance directive. The SDT does not, at this point, plan to develop a technical paper that discusses the merits of the standards introduced by FERC and NERC, because its current focus is on filing the FAC-001-1, FAC-003-3, and PRC-004-2.1a with FERC. As it moves forward to a final solution, however, this kind of technical paper may prove useful. We appreciate the suggestion.</p>		
Dominion		No
Tennessee Valley Authority		No
Exelon		<p>PRC-004 - suggest that the Standard state that responsibility for the analysis of missoperations of protective equipment shall be the responsibility of the owner of the protective equipment.</p>

Organization	Yes or No	Question 10 Comment
<p><b>Response:</b> Thank you for your comment and support. The SDT believes that the language makes clear that an entity need only be concerned with the Elements or Facilities that it owns.</p>		
ReliabilityFirst		<p>ReliabilityFist has found a number of editorial erros for the FAC-001-1 VSLs. They include the following:1. VSL R1 - should not reference sub-requirements, should reference the sub-parts consistent with the requirement (i.e. Requirement R1, Part 1.1, 1.2 or 1.3) 2. VSL for R3 - the VSL should referenced Requirement 3, Part 3.1.1 through 3.1.16 rather than what is currently stated (Requirement R3, Part 3.1.1 R3.1.6)</p>
<p><b>Response:</b> Thank you for your comment. While we agree that the VSLs for R1 need to be updated, that change is outside the scope of this SDT because our changes are limited to those that incorporate the GO into the applicability of the requirement; the team made no changes to R1 as it only includes the TO. We have, however, made the suggested changes to the VSLs for R3.</p>		
RES Americas Development		<p>RES and AWEA appreciates the opportunity to submit these comments on the NERC Project 2010-07. We support the general direction indicated by both the Generator Requirements at the Transmission Interface Ad Hoc Group and the Project 2010-07 Standards Development Team. We agree with the sentiments from both groups that a GO or GOP that also owns or operates a generator lead line should not be required to register as a TO or TOP strictly because they own or operate a generator lead line. We also agree that requiring these GO/GOPs to comply with all the TO/TOP standards would have little effect on or benefits to reliability of the Bulk Electric System, and could even detract from it. RES and AWEA supports the intent and goal of the SDT to ensure that all generator-owned Facilities are appropriately covered under NERC’s Reliability Standards. We also agree with the SDT that while many GO/GOPs operate Elements and Facilities that might be considered by some entities to be Transmission, these are most often radial Facilities that are not part of the integrated grid, and as such should not be subject to the same standards applicable to TO/TOPs, who own and operate Transmission Elements and Facilities that are part of the integrated grid. Therefore, we support the SDT’s approach of identifying a very limited number of</p>

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		TO/TOP standards, such as FAC-001 and FAC-003, which should also apply to GO/GOP owners of generator lead lines. We would be concerned, however, if additional requirements were added beyond FAC-001, FAC-003, and PRC-004. Consideration of any additional standards with respect to generator lead lines should be done on a standard-by-standard basis, reviewing the applicability of each standard as well as the impact on the reliability of the Bulk Electric System.
Sempra Generation		Sempra Generation also supports the comments, being concurrently filed, of the Electric Power Supply Association (EPSA).
<b>Response:</b> Thank you for your comment and support.		
Puget Sound Energy, Inc.		The changes to this standard are minor, and seem to be centered around including "generator Interconnection facilities" to R2. This added phrase and the statement in 1.4 Data Retention "Generator Owner that owns a generation Protection System" seems to assume that the generator owner and generator interconnection facilities owner is always the same. This is not always the case, and will make this standard language confusing to prepare evidence for. A suggestion would be to revise the language to allow for a separate generator owner and generator interconnection facilities owner.
<b>Response:</b> Thank you for your comment and support. The SDT believes that the language makes clear that an entity need only be concerned with the Elements or Facilities that it owns.		
SERC Planning Standards Subcommittee/ SERC OC Standards Review Group		The comments expressed herein represent a consensus of the views of the above-named members of the SERC EC Planning Standards Subcommittee only and should not be construed as the position of SERC Reliability Corporation, its board, or its officers”
<b>Response:</b> Thank you for your comment and support.		

END OF REPORT