

## Comment Report

**Project Name:** 2015-09 Establish and Communicate System Operating Limits | FAC-011-4, FAC-014-3, FAC-015-1, Implementation Plan, System Voltage Limit

Comment Period Start Date: 9/29/2017

Comment Period End Date: 11/14/2017

Associated Ballots:

- 2015-09 Establish and Communicate System Operating Limits FAC-011-4 IN 1 ST
- 2015-09 Establish and Communicate System Operating Limits FAC-014-3 IN 1 ST
- 2015-09 Establish and Communicate System Operating Limits FAC-015-1 IN 1 ST
- 2015-09 Establish and Communicate System Operating Limits Implementation Plan IN 1 OT
- 2015-09 Establish and Communicate System Operating Limits System Voltage Limit | New Definition IN 1 DEF

There were 56 sets of responses, including comments from approximately 166 different people from approximately 106 companies representing 10 of the Industry Segments as shown in the table on the following pages.

## Questions

1. The SDT is recommending retirement of FAC-010-3 and has provided justification in the “FAC-010/FAC-015 Rationale” and “FAC-010-3 Mapping Document.” Do you agree that the proposed retirement of FAC-010-3 does not create a reliability gap? Please provide supporting rationale.
2. Given the background discussion and the justification provided in the mapping document for FAC-011-3, Requirement R2, R2.1 and R2.2, do you agree that BES performance is adequately covered and that no reliability gaps are introduced from the removal of those concepts in a revised FAC-011-4? If not, please explain specifically what aspects of the removal you disagree with and propose alternative language.
3. Given the background discussion and the justification provided in the mapping document for FAC-011-3, Requirement R2, R2.3 and R2.4, do you agree that BES performance is adequately covered and that no reliability gaps are introduced from the removal of those concepts in a revised FAC-011-4? If not, please explain specifically what aspects of the removal you disagree with and propose alternative language.
4. Are there any reliability objectives of FAC-011-3, Requirement R2, R2.3 and R2.4 that you maintain need to be preserved in requirements relating to the development of Operating Plans which would reside outside the FAC family of standards? Please explain your response.
5. Do you agree that the SDT should allow the use of UVLS in the establishment of stability limits? If not, please explain and provide alternative language.
6. If you have any other comments that you haven’t already provided in response to questions 2-5, please provide them here.
7. The SDT is proposing to divide existing Requirement R1 of FAC-014-2 into three requirements in FAC-014-3 to clearly indicate which entities have the responsibility for establishing Interconnection Reliability Operating Limits (IROLs) [the RC], System Operating Limits (SOLs) [the TOP] and stability limits that impact more than one TOP in its Reliability Coordinator Area [the RC] into proposed Requirements R1, R2, and R4, respectively. Do you agree with the proposed changes? If not, please explain.
8. Existing FAC-014-2, Requirement R5, R5.2 requires the Transmission Operator (TOP) to provide its SOLs to its Reliability Coordinator (RC) and Transmission Service Providers (TSPs) that share its portion of the RC Area. The SDT is proposing in Requirement R3 of FAC-014-3 to exclude the TSPs from that communication chain. Other requirements in existing standards (MOD-028-2, Requirement R7, MOD-029-2a, Requirement R4, and MOD-030-3, Requirement R2.6) require the TOP to provide the Total Transfer Capabilities (TTCs), Total Flowgate Capabilities (TFCs), along with supporting information and assumptions to TSPs. Because the TTCs and TFCs already reflect the impact(s) of any SOLs, the SDT deemed retention of the existing language unnecessary. Do you agree with the proposed change? If not, please explain.
9. The SDT relocated the reliability objectives of existing Requirement R6 of FAC-014-2 into Requirement R6 of proposed Reliability Standard FAC-015-1 such that all Planning Coordinator and Transmission Planner responsibilities will be housed within one standard. Do you agree with the proposed change? If not, please explain.
10. If you have any other comments that you haven’t already provided in response to questions 7-9, please provide them here.

11. FAC-015-1 is predicated on the principle that Facility Ratings, System steady-state voltage limits, and stability criteria used in Planning Assessments for the Near-Term Transmission Planning Horizon should be more conservative/restrictive/limiting than those found in (or established in accordance with) the RC's SOL Methodology, allowing for justified exceptions. Do you agree with this principle? If not, please explain.
12. Do you agree that coordination of Facility Ratings, System steady state voltage limits, and stability performance criteria as required in Requirements R1-R3 should be limited to Planning Assessments of the Near-Term Transmission Planning Horizon? If yes, please provide supporting rationale; if no, please explain and provide alternative language.
13. In Requirements R1 – R3, the SDT is proposing to allow a PC to provide a technical justification to its RC for using less limiting Facility Ratings, System steady-state voltage limits, and stability performance criteria than those specified in its RC's SOL Methodology. Do you agree that this provides adequate flexibility (in the rare circumstances when less limiting Facility Ratings, System steady-state voltage limits, and stability performance criteria must be utilized; e.g., up-rating a line in a future project) without compromising reliability? If yes, please provide supporting rationale; if no, please explain and provide alternative language.
14. Do you agree that the information identified in Requirement R6 is necessary for each impacted RC and TOP to properly evaluate instability, Cascading, or uncontrolled separation identified in planning assessments for use in establishing stability limits and IROLs in the operations horizon? If not, please explain and provide alternative language.
15. Do you agree that the Planning Assessment of the Near-Term Transmission Planning Horizon and the Transfer Capability assessment, as stipulated in Requirement R6, are the appropriate assessments for identifying any instability, Cascading, or uncontrolled separation in the planning horizon? If yes, please provide supporting rationale; if no, please explain and provide alternative language.
16. If you have any other comments that you haven't already provided in response to questions 11-15, please provide them here.
17. Do you agree with the proposed definition of System Voltage Limit? If not, please explain and provide alternative language.
18. Do you agree with the Implementation Plan? If not, please provide the basis for your disagreement and an alternate proposal.
19. The SDT asserts the combination of proposed FAC-011-4, FAC-014-3, and FAC-015-1 provide entities with flexibility to meet the reliability objectives in the project Standards Authorization Request (SAR) in a cost effective manner. Do you agree? If you do not agree, or if you agree but have suggestions for improvement to enable additional cost effective approaches to meet the reliability objectives, please provide your recommendation and, if appropriate, technical justification.

Organization Name	Name	Segment(s)	Region	Group Name	Group Member Name	Group Member Organization	Group Member Segment(s)	Group Member Region
Brandon McCormick	Brandon McCormick		FRCC	FMPA	Tim Beyrle	City of New Smyrna Beach Utilities Commission	4	FRCC
					Jim Howard	Lakeland Electric	5	FRCC
					Lynne Mila	City of Clewiston	4	FRCC
					Javier Cisneros	Fort Pierce Utilities Authority	3	FRCC
					Randy Hahn	Ocala Utility Services	3	FRCC
					Don Cuevas	Beaches Energy Services	1	FRCC
					Jeffrey Partington	Keys Energy Services	4	FRCC
					Tom Reedy	Florida Municipal Power Pool	6	FRCC
					Steven Lancaster	Beaches Energy Services	3	FRCC
					Mike Blough	Kissimmee Utility Authority	5	FRCC
					Chris Adkins	City of Leesburg	3	FRCC
					Ginny Beigel	City of Vero Beach	3	FRCC
ACES Power Marketing	Brian Van Gheem	6	NA - Not Applicable	ACES Standards Collaborators	Greg Froehling	Rayburn Country Electric Cooperative, Inc.	3	SPP RE
					Bob Solomon	Hoosier Energy Rural Electric Cooperative, Inc.	1	RF

					Shari Heino	Brazos Electric Power Cooperative, Inc.	1,5	Texas RE
					Ginger Mercier	Prairie Power, Inc.	1,3	SERC
					Lucia Beal	Southern Maryland Electric Cooperative	3	RF
					Mike Brytowski	Great River Energy	1,3,5,6	MRO
					John Shaver	Arizona Electric Power Cooperative, Inc.	1	WECC
					Bill Hutchison	Southern Illinois Power Cooperative	1	SERC
					Kevin Lyons	Central Iowa Power Cooperative	1	MRO
Duke Energy	Colby Bellville	1,3,5,6	FRCC,RF,SERC	Duke Energy	Doug Hills	Duke Energy	1	RF
					Lee Schuster	Duke Energy	3	FRCC
					Dale Goodwine	Duke Energy	5	SERC
					Greg Cecil	Duke Energy	6	RF
Midwest Reliability Organization	Cynthia Kneisl	1,2,3,4,5,6	MRO	MRO NSRF	Joseph DePoorter	Madison Gas & Electric	3,4,5,6	MRO
					Larry Heckert	Alliant Energy	4	MRO
					Amy Casucelli	Xcel Energy	1,3,5,6	MRO
					Michael Brytowski	Great River Energy	1,3,5,6	MRO
					Jodi Jensen	Western Area Power Administration	1,6	MRO
					Kayleigh Wilkerson	Lincoln Electric System	5	MRO
					Kayleigh Wilkerson	Lincoln Electric System	1,3,5,6	MRO
					Mahmood Safi	Omaha Public Power District	1,3,5,6	MRO

					Brad Parret	Minnesota Power	1,5	MRO
					Terry Harbour	MidAmerican Energy Corporation	1,3	MRO
					Tom Breene	Wisconsin Public Service	3,4,5	MRO
					Jeremy Voll	Basin Electric Power Cooperative	1	MRO
					Kevin Lyons	Central Iowa Power Cooperative	1	MRO
					Mike Morrow	Midcontinent Independent System Operator	2	MRO
Tennessee Valley Authority	Dennis Chastain	1,3,5,6	SERC	Tennessee Valley Authority	DeWayne Scott	Tennessee Valley Authority	1	SERC
					Ian Grant	Tennessee Valley Authority	3	SERC
					Brandy Spraker	Tennessee Valley Authority	5	SERC
					Marjorie Parsons	Tennessee Valley Authority	6	SERC
Seattle City Light	Ginette Lacasse	1,3,4,5,6	WECC	Seattle City Light Ballot Body	Pawel Krupa	Seattle City Light	1	WECC
					Hao Li	Seattle City Light	4	WECC
					Bud (Charles) Freeman	Seattle City Light	6	WECC
					Mike Haynes	Seattle City Light	5	WECC
					Michael Watkins	Seattle City Light	1,4	WECC
					Faz Kasraie	Seattle City Light	5	WECC
					John Clark	Seattle City Light	6	WECC
					Tuan Tran	Seattle City Light	3	WECC

					Laurie Hammack	Seattle City Light	3	WECC
Public Utility District No. 1 of Chelan County	Janis Weddle	6		Chelan PUD	Haley Sousa	Public Utility District No. 1 of Chelan County	5	WECC
					Joyce Gundry	Public Utility District No. 1 of Chelan County	3	WECC
					Jeff Kimbell	Public Utility District No. 1 of Chelan County	1	WECC
					Janis Weddle	Public Utility District No. 1 of Chelan County	6	WECC
Associated Electric Cooperative, Inc.	Mark Riley	1		AECI & Member G&Ts	Mark Riley	Associated Electric Cooperative, Inc.	1	SERC
					Brian Ackermann	Associated Electric Cooperative, Inc.	6	SERC
					Brad Haralson	Associated Electric Cooperative, Inc.	5	SERC
					Todd Bennett	Associated Electric Cooperative, Inc.	3	SERC
					Michael Bax	Central Electric Power Cooperative (Missouri)	1	SERC
					Adam Weber	Central Electric Power Cooperative (Missouri)	3	SERC
					Ted Hilmes	KAMO Electric Cooperative	3	SERC
					Walter Kenyon	KAMO Electric Cooperative	1	SERC
					Stephen Pogue	M and A	3	SERC

						Electric Power Cooperative		
					William Price	M and A Electric Power Cooperative	1	SERC
					Mark Ramsey	N.W. Electric Power Cooperative, Inc.	1	SERC
					Kevin White	Northeast Missouri Electric Power Cooperative	1	SERC
					Skyler Wiegmann	Northeast Missouri Electric Power Cooperative	3	SERC
					John Stickley	NW Electric Power Cooperative, Inc.	3	SERC
					Jeff Neas	Sho-Me Power Electric Cooperative	3	SERC
					Peter Dawson	Sho-Me Power Electric Cooperative	1	SERC
Manitoba Hydro	Mike Smith	1		Manitoba Hydro	Yuguang Xiao	Manitoba Hydro	5	MRO
					Karim Abdel-Hadi	Manitoba Hydro	3	MRO
					Blair Mukanik	Manitoba Hydro	6	MRO
					Mike Smith	Manitoba Hydro	1	MRO
Southern Company - Southern Company Services, Inc.	Pamela Hunter	1,3,5,6	SERC	Southern Company	Katherine Prewitt	Southern Company Services, Inc.	1	SERC
					Joel Dembowski	Southern Company - Alabama Power Company	3	SERC
					William D. Shultz	Southern Company Generation	5	SERC

					Jennifer G. Sykes	Southern Company Generation and Energy Marketing	6	SERC
Eversource Energy	Quintin Lee	1		Eversource Group	Timothy Reyher	Eversource Energy	5	NPCC
					Mark Kenny	Eversource Energy	3	NPCC
					Quintin Lee	Eversource Energy	1	NPCC
Northeast Power Coordinating Council	Ruida Shu	1,2,3,4,5,6,7,8,9,10	NPCC	RSC no Dominion NextERA Con-Ed	Guy V. Zito	Northeast Power Coordinating Council	10	NPCC
					Randy MacDonald	New Brunswick Power	2	NPCC
					Wayne Sipperly	New York Power Authority	4	NPCC
					Glen Smith	Entergy Services	4	NPCC
					Brian Robinson	Utility Services	5	NPCC
					Bruce Metruck	New York Power Authority	6	NPCC
					Alan Adamson	New York State Reliability Council	7	NPCC
					Edward Bedder	Orange & Rockland Utilities	1	NPCC
					David Burke	Orange & Rockland Utilities	3	NPCC
					Michele Tondalo	UI	1	NPCC
					Laura Mcleod	NB Power	1	NPCC
					David Ramkalawan	Ontario Power Generation Inc.	5	NPCC
Quintin Lee	Eversource Energy	1	NPCC					

					Paul Malozewski	Hydro One Networks, Inc.	3	NPCC
					Helen Lainis	IESO	2	NPCC
					Michael Schiavone	National Grid	1	NPCC
					Michael Jones	National Grid	3	NPCC
					Kathleen Goodman	ISO-NE	2	NPCC
					Greg Campoli	NYISO	2	NPCC
					Sylvain Clermont	Hydro Quebec	1	NPCC
					Chantal Mazza	Hydro Quebec	2	NPCC
Scott Miller	Scott Miller		SERC	MEAG Power	Roger Brand	MEAG Power	3	SERC
					David Weekley	MEAG Power	1	SERC
					Steven Grego	MEAG Power	5	SERC
Southwest Power Pool, Inc. (RTO)	Shannon Mickens	2	SPP RE	SPP Standards Review Group	Shannon Mickens	Southwest Power Pool Inc.	2	SPP RE
					j.Scott Williams	City Utilities of Springfield, MO	1,4	SPP RE
					Deborah McEndaffer	Midwest Energy, Inc	NA - Not Applicable	SPP RE
					Robert Gray	Board of Public Utilities (BPU), Kansas, City	NA - Not Applicable	SPP RE
					Steve McGie	Board of Public Utilities (BPU), Kansas, City	NA - Not Applicable	SPP RE
					Robert Hirchak	Cleco Corporation	6	SPP RE

1. The SDT is recommending retirement of FAC-010-3 and has provided justification in the “FAC-010/FAC-015 Rationale” and “FAC-010-3 Mapping Document.” Do you agree that the proposed retirement of FAC-010-3 does not create a reliability gap? Please provide supporting rationale.

**Richard Vine - California ISO - 2**

**Answer** No

**Document Name**

**Comment**

FAC-010-3 contains regional differences (e.g. common corridor 500 kV outages, no cascading for loss of two PV units) that the California ISO plans the WECC system to that provide for a more resilient system.

With the exception of this Question and Question 15, the California ISO supports the comments of the ISO/RTO Council Standards Review Committee. However, the California ISO has provided numerous additional comments in the sections below related to the new proposed FAC-015-1 standard.

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

SCE agrees with the drafting team that the new TPL-001-4 ensures the reliable planning of the transmission system and addresses each of the reliability components of FAC-010-3. The mapping document adequately and exhaustively demonstrates where the components of FAC-010 are addressed in other standards or are no longer relevant under the new SOL/IROL construct.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

BPA agrees with the SDT's rationale.

Likes 0

Dislikes 0

### Response

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer**

Yes

**Document Name**

### Comment

Yes, I agree that it is unnecessary to have a planning SOL methodology. The TPL requirements along with changes to FAC-011, FAC-014 and the new requirements discussed in the FAC-015 (which I think should be covered in the TPL standard, but my comments on that are covered in the FAC-015 section) adequately define what ratings/limits should be used to plan the system.

**Note:** While we agree with the retirement of FAC-010, we will be voting "No" because of our problems with FAC-015. These changes to FAC-010, FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.

Likes 0

Dislikes 0

### Response

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer**

Yes

**Document Name**

### Comment

Reclamation supports retiring FAC-010-3 because the requirements are adequately addressed in other NERC Standards.

Likes 0

Dislikes 0

### Response

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer**

Yes

**Document Name**

**Comment**

FAC-010 has always had minimal reliability value as it was restating what was already occurring as part of the TPL standards. Manitoba Hydro agrees the FAC-010-3 is completely redundant with TPL-001-4.

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer**

Yes

**Document Name**

**Comment**

Yes, I agree that it is unnecessary to have a planning SOL methodology. The TPL requirements along with changes to FAC-011, FAC-014 and the new requirements discussed in the FAC-015 (which I think should be covered in the TPL standard, but my comments on that are covered in the FAC-015 section) adequately define what ratings/limits should be used to plan the system.

**Note:** While we agree with the retirement of FAC-010, we will be voting “No” because of our problems with FAC-015. These changes to FAC-010, FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

SRP supports the retirement of FAC-010-3 as part of this project. However SRP will be voting Negative on the ballot due to recommended changes with the other proposed standards.

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Peak agrees that the retirement of FAC-010 does not create a reliability gap. The SDT did a thorough job in their assessment of FAC-010 in the mapping document. As is pointed out in the supporting documentation, there is an abundance of redundancies between FAC-010 (and the associated requirements in FAC-014) and TPL-001-4. Peak supports the retirement of FAC-010 and the addition of FAC-015 as described in the supporting documentation.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Shivaz Chopra - New York Power Authority - 1,3,5,6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Supporting NPCC comments	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Bridget Silvia - Sempra - San Diego Gas and Electric - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Requirements in FAC-010-3 are covered by TPL_001_4	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1</b>	

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
We support the ISO RTO Council Comments.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Julie Hall - Entergy - 6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Entergy agrees with the mapping document, the reliability impact is covered elsewhere.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPPA</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
The coordination between the Planning and Operations horizons can and should occur without the added confusion of having a separate set of planning SOLs/IROLs.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD</b>	

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
CHPD confirms that it views the reliability function of FAC-010-3 to be duplicative of those objectives also contained in the TPL-001-4 and to some extent, FAC-013. CHPD believes the retirement of FAC-010-3 will not create a reliability gap.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>David Jendras - Ameren - Ameren Services - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
System Operating Limits in the planning horizon in the Eastern Interconnection are generally the applicable steady-state ratings of the facilities, which are included in the powerflow models and are tested in a wide range of contingency analyses as required by standard TPL-001-4. Voltage limits are generally published in transmission planning criteria documents.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
We strongly support the retirement of FAC-010-3 and the SDT rationale.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Lauren Price - American Transmission Company, LLC - 1 - MRO,RF</b>	

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
ATC agrees with the retirement of FAC-010-3 due to the proposed revisions to FAC-011 and FAC-014 as well as the creation of a proposed FAC-015-1 standard. These proposals adequately address the necessary coordination between operations and planning.	
Likes 0	
Dislikes 0	
<b>Response</b>	
Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
Michelle Amarantos - APS - Arizona Public Service Co. - 1	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

Answer Yes

Document Name

Comment

Likes 3	PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph
---------	--

Dislikes 0	
------------	--

**Response**

**Sing Tay - Sing Tay On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5; - Sing Tay**

Answer	Yes
--------	-----

Document Name	
---------------	--

**Comment**

Likes 0	
---------	--

Dislikes 0	
------------	--

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

Answer	Yes
--------	-----

Document Name	
---------------	--

**Comment**

Likes 0	
---------	--

Dislikes 0	
------------	--

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

Answer	Yes
--------	-----

Document Name	
---------------	--

**Comment**

Likes 0	
---------	--

Dislikes 0	
------------	--

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>James Grimshaw - CPS Energy - 3</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Gladys DeLaO - CPS Energy - 1</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb</b>	
Answer	Yes
Document Name	
Comment	

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2</b>	
Answer	Yes
Document Name	2015-09_Unofficial_Comment_Form_092717_ERCOT_final.docx
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Scott Miller - Scott Miller On Behalf of: David Weekley, MEAG Power, 3, 5, 1; Roger Brand, MEAG Power, 3, 5, 1; Steven Grego, MEAG Power, 3, 5, 1; - Scott Miller, Group Name MEAG Power</b>	
Answer	
Document Name	
Comment	

MEAG Power supports all Southern Company responses herein. Scott Miller

Likes 0

Dislikes 0

**Response**

2. Given the background discussion and the justification provided in the mapping document for FAC-011-3, Requirement R2, R2.1 and R2.2, do you agree that BES performance is adequately covered and that no reliability gaps are introduced from the removal of those concepts in a revised FAC-011-4? If not, please explain specifically what aspects of the removal you disagree with and propose alternative language.

Leonard Kula - Independent Electricity System Operator - 2

Answer No

Document Name

Comment

Interpretation of Facility Ratings, System Voltage Limits and Stability limits are confusing and can be easily misinterpreted. In the background information above, SDT states that 'For example, "BES performance" for Facility Ratings is determined through OPAs and RTAs which assess the flow on Facilities in the pre- and post-Contingency states...' As it can be seen Facility Ratings can be interpreted as Thermal ratings only. Facility Ratings should include both Thermal ratings and voltage ratings of the equipment.

Likes 0

Dislikes 0

Response

Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD

Answer No

Document Name

Comment

**Commentary and Support:** In the existing FAC-011-3 paradigm, System Operating Limits (SOLs) are essentially the means used to limit the system so that the Bulk Electric System (BES) has acceptable performance both pre-contingency and post-contingency. Although not a term used in FAC-011-3, the concept of 'Reliable Operation' from the NERC Glossary of Terms is helpful in describing the objective:

Reliable Operation: "Operating the elements of the [Bulk-Power System] within equipment and electric system thermal, voltage, and stability limits..."

In the new, proposed FAC-011-4 paradigm, the focus is removed from SOLs as the tool to ensure secure system operations, and instead moves to assessing whether expected operating conditions are within acceptable performance pre- and post-contingency. If studies indicate otherwise, entities and the RC implement and utilize Operating Plans to keep the system within acceptable performance.

Conceptually, FAC-011-3 and FAC-011-4 are very similar. One uses SOLs to keep the system within acceptable performance; the other uses Operating Plans when unacceptable performance is identified. Therefore, the reliability objectives are maintained, although the terminology and approach has now changed.

In the description of the proposed FAC-011-4, SOLs now play a role similar to Facility Ratings, Voltage Criteria, and Stability Criteria; SOLs are now

part of the criteria to assess acceptable BES performance via OPAs and RTAs.

**Comment 1:** CHPD would like to see an approach where the assessment of the system is started with Facility Ratings and performance criteria, and SOLs, if required, be used as an operational tool to support operating within those Facility Ratings and performance criteria, along with generation re-dispatch, topology re-configuration, etc.

**Comment 2:** Regarding the contingencies transferred from FAC-011-3 to FAC-011-4 to align with the TPL contingencies, there are two discontinuities worth mentioning.

In the old FAC-011-3, R2.2.2. listed “Loss of any generator, line, transformer, or shunt device without a Fault”.

The new FAC-011-4 description is now “...or without a Fault: generator; transmission circuit; transformer; shunt device; or single pole block, with Normal Clearing, in a monopolar or bipolar high voltage direct current system.”

In TPL-001-4, the analogous no-fault contingency is a category P2.1, and is described in TPL-001-4 Table 1 as “Opening of a line section w/o a fault”.

In summary, the new FAC-011-4 adds the single pole block to the list of no-fault outages. This probably has minor impact, but CHPD is unsure why it is being added. The second change, which is maintained, is of greater mention – there has been a discontinuity between the TPL requirements for no-fault (line section w/o a fault) and both the old and new FAC-011 standards (generator, line (old) / transmission circuit (new) transformer, shunt device (or single pole block). This could mean that these non-fault events aren’t planned for through TPL, but are expected to be operated to through the FAC standard. CHPD requests this be examined by the Standard Drafting Team to see if a better alignment between TPL and FAC can be arranged. Additionally, the difference between the old FAC-011-3 ‘line’ and the new FAC-011-4 ‘transmission circuit’ could be clarified if these are intended to be the same thing, or if differences are intended (and if so, what are those differences).

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer**

No

**Document Name**

**Comment**

With regard to the proposed Requirement R2, OGE believes that the proposed language could be mistakenly interpreted as giving the Reliability Coordinator the discretion to impose unacceptable Facility Ratings to Transmission Operators. We would ask that the drafting team provides more clarity on the intent for this requirement.

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer**

No

**Document Name****Comment**

We do not agree with the proposed definition of SOL Exceedance. In our proposed definition below, we excluded the criteria for which contingencies should be assessed. We do not believe that the state of the system (pre or post contingency) should be included in the definition of SOL Exceedance, but should be left outside that definition. We believe that an RC's SOL methodology should define the conditions in which an SOL should not be exceeded.

**Southern's Proposed definition:**

**SOL Exceedance** - An operating condition, as determined in Real-time Monitoring, when

An exceedance can only occur if it happens in Real-time and therefore the SOL Exceedance definition should not incorporate the concept of predicted exceedances. Predicted exceedances, such as those identified through OPAs and RTAs, may or may not occur as they are just that, predicted. Predicted exceedances should not be defined and subject to the stringent set of limitations and requirements that SOL Exceedances should be. Furthermore, how predicted exceedances are identified, assessed, operationally planned for and mitigated should be the responsibility of the Reliability Coordinator. Therefore, any such definition for predicted exceedances should remain in the respective RC's SOL methodology.

Likes 0

Dislikes 0

**Response**

**Sing Tay - Sing Tay On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5; - Sing Tay**

**Answer**

No

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

Yes

**Document Name****Comment**

The existing TOP standards adequately cover BES performance.

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer**

Yes

**Document Name**

**Comment**

The language in Requirement 2: “for Transmission Operators to determine the applicable owner needs work. Suggested language: “for Transmission Operators to determine SOLs based upon the Transmission Owner-provided Facility Ratings.” used in Operations Rating

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer**

Yes

**Document Name**

**Comment**

We support the ISO RTO Council Comments.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer** Yes

**Document Name**

**Comment**

Peak agrees that no reliability gap is introduced with the removal of the requirements R2, R2.1, and R2.2. Peak agrees with the justifications set forth in the FAC-011 mapping document for these requirements. Peak also believes that the removal of requirements R2, R2.1 and R2.2 would be strengthened by adoption of the proposed definition of SOL Exceedance.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

BPA agrees that these requirements should be removed from FAC-011-3 because they don't apply to the Operations Horizon.

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Gladys DeLaO - CPS Energy - 1</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed</b>	
Answer	Yes
Document Name	
<b>Comment</b>	

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPA	
Answer	Yes
Document Name	
Comment	

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name** Duke Energy

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3****Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF****Answer** Yes**Document Name****Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response****Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3****Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Neil Swearingen - Salt River Project - 1,3,5,6 - WECC****Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Keyleigh Wilkerson - Lincoln Electric System - 5**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>
----------------

Likes 0	
---------	--

Dislikes 0	
------------	--

<b>Response</b>
-----------------

**Wendy Center - U.S. Bureau of Reclamation - 5**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>
----------------

Likes 0	
---------	--

Dislikes 0	
------------	--

<b>Response</b>
-----------------

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>
----------------

Likes 0	
---------	--

Dislikes 0	
------------	--

<b>Response</b>
-----------------

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>
----------------

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Richard Vine - California ISO - 2</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
The California ISO supports the comments of the ISO/RTO Council Standards Review Committee	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
NIPSCO is concerned that the requirement does not provide adequate assurance that the RC will respect the ratings established by the TO or the TO's FAC-008 methodology. As written, the language is vague and could be interpreted as allowing an RC to determine the ratings that a TOP must use (including normal and emergency ratings and seasonal changeover dates) without respecting the TO's authority to establish such Facility Ratings.	
Likes 0	
Dislikes 0	
<b>Response</b>	

3. Given the background discussion and the justification provided in the mapping document for FAC-011-3, Requirement R2, R2.3 and R2.4, do you agree that BES performance is adequately covered and that no reliability gaps are introduced from the removal of those concepts in a revised FAC-011-4? If not, please explain specifically what aspects of the removal you disagree with and propose alternative language.

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer** No

**Document Name**

**Comment**

SRP recommends retaining the clarifying language of 2.3 and 2.4. Having the options explicitly stated within the standard ensures consistency throughout each RC area in the way TOPs respond to Contingencies. Having those clear, well-defined options spelled out within the RC's SOL Methodology enhances reliability by setting consistent expectations of what actions neighboring or overlapping TOPs may be performing. Furthermore, it is valuable to house the language within a standard dealing with the Operations Planning Horizon, to avoid a potential misconception that the described options are only permissible when planning the system in the Near-term or Long-term Planning Horizons.

Likes 0

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** No

**Document Name**

**Comment**

See response to Question 2 above.

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer** No

**Document Name**

**Comment**

With regard to the proposed Requirement R2, OGE believes that the proposed language could be mistakenly interpreted as giving the Reliability Coordinator the discretion to impose unacceptable Facility Ratings to Transmission Operators. We would ask that the drafting team provides more

clarity on the intent for this requirement.

Likes 0

Dislikes 0

## Response

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer**

No

**Document Name**

**Comment**

**Comment 1:** CHPD is concerned about the 'permitted uses' language of RAS and other schemes, to be contained in the RC's methodology. In the TPL / Planning process, an entity may determine and build a scheme under a certain set of assumptions (how the system was planned / designed / built). The entity may determine this scheme is acceptable to their own operations. The RC may then prohibit the use of this non-RAS in the RC's SOL methodology, rendering the scheme useless for actual operations. CHPD has witnessed this concern with one of its neighbor's automatic schemes and feels that the prohibition of the scheme's use for operations has not always been in the best interest of system reliability. CHPD also recognizes the Planning Coordinator and Reliability Coordinator will be performing additional coordination through the new PRC-012-2, whose purpose is stated as "To ensure that Remedial Action Schemes (RAS) do not introduce unintentional or unacceptable reliability risks to the Bulk Electric System

(BES)." The requirement here in FAC-011 may be duplicative of those objectives found in the new PRC-012-2.

In FAC-011-3, only allowed uses of Remedial Action Schemes was listed under the RC's methodology requirements. In FAC-011-4, the addition of 'other automatic post-Contingency mitigation actions' adds significant scope to the methodology. CHPD wants the Standard Drafting Team to ensure that the concept of 'operated as designed' is maintained in the use of these other automatic post-Contingency mitigation actions.

**Comment 2:** In the discussion about UFLS being not permitted in R4.6 (and by omittance, UVLS being permitted) CHPD identifies that there seems to be confusion, or at least the potential for confusion, about the FERC order and acceptable use or non-use of these schemes. The first point is that there is a difference between a UFLS or UVLS program. From the NERC glossary of terms:

**Undervoltage Load Shedding Program:** An automatic load shedding program, consisting of distributed relays and controls, used to mitigate undervoltage conditions impacting the Bulk Electric System (BES), leading to voltage instability, voltage collapse, or Cascading. Centrally controlled undervoltage-based load shedding is not included.

Underfrequency Load Shedding Program is not described in the NERC glossary of terms, but is described in the purpose description for PRC-006:

To establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures

A UFLS or UVLS program is a coordinated use of UFLS or UVLS relays at multiple locations and are essentially used to prevent described conditions that are essentially the events of an IROL. The FERC order 818 states regarding UVLS programs:

"We conclude that UVLS **programs** (emphasis added) under PRC-010-1 are examples of such "safety nets" and should not be tools used by bulk electric system operators to calculate operating limits for N-1 contingencies."

Again, in the "Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations", on page 109 in the discussion about UFLS as a safety net, it simply states:

Safety nets should not be relied upon to establish transfer limits

CHPD would like clarification here in the proposed FAC-011-4 whether the references to UFLS (and UVLS) are meant to be to the UFLS (PRC-006) and UVLS (PRC-010) Programs or is it a reference to something else.

Likes 0

Dislikes 0

### Response

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

### Response

**Scott Downey - Peak Reliability - 1**

**Answer**

Yes

**Document Name**

**Comment**

Peak agrees that BES performance is adequately covered and that no reliability gap is introduced with the removal of the requirements R2, R2.3 and its subparts, and R2.4. Peak agrees with the justifications set forth in the FAC-011 mapping document for these requirements. Peak believes that the “rules” set forth in the current FAC-011-3 R2, R2.3 and its subparts, and R2.4 have relevance in the TPL standards, but not in the TOP or IRO standards. When planners plan the system, they are constructing a system that meets the performance requirements set forth in TPL-001-4. This system is then provided to operators to operate. Rules such as those reflected in Table 1 of TPL-001-4 and the footnotes of Table 1 are important for identifying Corrective Action Plans associated with determining how the system is to be built; however, Peak believes the “rules” as reflected in FAC-011-3 R2, R2.3 and its subparts, and R2.4 are not necessary for operating the system. Operators encounter many operating scenarios that were not addressed or anticipated in the TPL Planning Assessments, and very often these conditions are more severe than those assessed in the Planning Assessments. Peak agrees with the SDT’s assertion that operators need the flexibility to operate the system to address SOL exceedances without being confined to such “rules” regarding non-consequential load loss, interruption of firm transmission, and requirements associated with preparations for the next Contingency. All of these items are expected to be addressed as needed in associated Operating Plans. Accordingly, operators do not need to be confined to these “rules” set forth in current FAC-011-3 R2, R2.3 and its subparts, and R2.4.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer** Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer** Yes

**Document Name**

**Comment**

Duke Energy would like to point out to the SDT, a potential typo in the FAC-011-3 Mapping Document. When referencing the translation of R2 and its sub-requirements to a New Standard or Other Action, the SDT appears to reference a TOP-012-3 standard R14. We believe that this was in error, and that perhaps the drafting team meant to reference TOP-001-3 instead.

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** Yes

**Document Name**

**Comment**

We support the ISO RTO Council Comments.

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed**

**Answer** Yes

**Document Name**

**Comment**

We think the removal of BES performance from R2 is relevant, but that the performance requirements associated with determination of stability limits associated with SOLs are vague compared to the TPL assessments. Is the SDT intent to let full flexibility to the RC with regards to stability performance requirements per requirement 4.1? For example, is a unit pulling out of synchronism something up to the RC to demonstrate as acceptable for the purpose of determining SOLs/IROLs for a given interface?

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer** Yes

**Document Name**

**Comment**

The existing TOP standards adequately cover BES performance.

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name** FMPPA

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

<b>Document Name</b>	
<b>Comment</b>	
The California ISO supports the comments of the ISO/RTO Council Standards Review Committee	
Likes 0	
Dislikes 0	
<b>Response</b>	

4. Are there any reliability objectives of FAC-011-3, Requirement R2, R2.3 and R2.4 that you maintain need to be preserved in requirements relating to the development of Operating Plans which would reside outside the FAC family of standards? Please explain your response.

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer** No

**Document Name**

**Comment**

As a practice, reliability objectives should be maintained in standards. Documentation and examples supporting those objectives (white papers, guidelines, etc.) can reside outside the standard. Regarding Operating Plans, the definition found in the NERC glossary of terms is sufficient for CHPD. Regarding R2, R2.3 and R2.4 as it deals with the response of the system to events, any other reliability objectives should be contained in the standard to ensure these items have the scrutiny, review, and due process related to these items. CHPD has mentioned some concerns in its responses to item #3, but has nothing in addition to those to add here.

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** No

**Document Name**

**Comment**

We support the ISO RTO Council Comments.

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer** No

**Document Name**

**Comment**

Peak believes that the "rules" set forth in the current FAC-011-3 R2, R2.3 and its subparts, and R2.4 have relevance in the TPL standards, but not in the TOP or IRO standards. When planners plan the system, they are constructing a system that meets the performance requirements set forth in TPL-001-4. This system is then provided to operators to operate. Rules such as those reflected in Table 1 of TPL-001-4 and the footnotes of Table 1 are important for identifying Corrective Action Plans associated with determining how the system is to be built; however, Peak believes the "rules" as

reflected in FAC-011-3 R2, R2.3 and its subparts, and R2.4 are not necessary for operating the system. Operators encounter many operating scenarios that were not addressed or anticipated in the TPL Planning Assessments, and very often these conditions are more severe than those assessed in the Planning Assessments. Peak agrees with the SDT's assertion that operators need the flexibility to operate the system to address SOL exceedances without being confined to such "rules" regarding non-consequential load loss, interruption of firm transmission, and requirements associated with preparations for the next Contingency. All of these items are expected to be addressed as needed in associated Operating Plans. Accordingly, operators do not need to be confined to these "rules" set forth in current FAC-011-3 R2, R2.3 and its subparts, and R2.4.-

Likes 0

Dislikes 0

### Response

#### Neil Swearingen - Salt River Project - 1,3,5,6 - WECC

Answer

No

Document Name

Comment

SRP Recommends retaining the language of R2.3 and R2.4 within the FAC-011-4 standard.

Likes 0

Dislikes 0

### Response

#### Wendy Center - U.S. Bureau of Reclamation - 5

Answer

No

Document Name

Comment

Reclamation supports the changes to the requirements because no gaps were identified as the result of the changes.

Likes 0

Dislikes 0

### Response

#### Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC

Answer

No

Document Name

Comment

BPA has reviewed R2, R2.3 and 2.4 and believes the TOP-001-4 and TOP-002-4 requirements are sufficient.

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer**

No

**Document Name**

**Comment**

The revised TOP and TPL standards cover the planning and operations of the system.

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino

Answer No

Document Name

**Comment**

Likes 0

Dislikes 0

**Response**

Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators

Answer No

Document Name

**Comment**

Likes 0

Dislikes 0

**Response**

Leonard Kula - Independent Electricity System Operator - 2

Answer No

Document Name

**Comment**

Likes 0

Dislikes 0

**Response**

Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1

Answer	No
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb</b>	
Answer	No
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Gladys DeLaO - CPS Energy - 1</b>	
Answer	No
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>James Grimshaw - CPS Energy - 3</b>	
Answer	No
Document Name	
<b>Comment</b>	

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

Answer	No
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name</b> Tennessee Valley Authority	
Answer	No
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name</b> FMPPA	
Answer	No
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Quintin Lee - Eversource Energy - 1, Group Name</b> Eversource Group	
Answer	No
Document Name	
Comment	

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer** No

**Document Name**

**Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name** Southern Company

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments. Additional comment for consideration: Typically there are additional Thermal ratings above

the "normal" limit that have a time frame associated with them. For example an emergency limit may be a 15 minute rating, i.e. the flow can be at the emergency rating for 15 minutes. Therefore, by design, being above the normal rating is not going to result in damage to the BES elements. Therefore the 1st bullet in the SOL Exceedance definition could be revised to state "Actual flow through a Facility is above the Facility's Rating and the associated allowable time frame is exceeded".

Likes 0

Dislikes 0

### Response

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name** RSC no Dominion NextERA Con-Ed

**Answer**

Yes

**Document Name**

**Comment**

We think actions allowed in real-time operations should not be part of FAC-011, but captured by TOP/IRO standards. We think there is ambiguity and a lack of consistency in the industry around allowed system adjustments and preparation for the next contingency (old R2.4) with refers indirectly to N-011 requirements. Although it is a standard FAC set of single contingencies to address stability limits, it is not clear at all what are the minimum requirements applicable if the contingency was to occur... and how "preparing for the next contingency" is addressed by the current standards.

Likes 0

Dislikes 0

### Response

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

### Response

**sean erickson - Western Area Power Administration - 1**

**Answer**

Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Bridget Silvia - Sempra - San Diego Gas and Electric - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

<b>Response</b>	
<b>Richard Vine - California ISO - 2</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
The California ISO supports the comments of the ISO/RTO Council Standards Review Committee	
Likes 0	
Dislikes 0	
<b>Response</b>	

5. Do you agree that the SDT should allow the use of UVLS in the establishment of stability limits? If not, please explain and provide alternative language.

Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

**Comment**

It is unclear in 4.6 (and the entirety of R4) if “stability limits” refers to either or both of the following (1) bulk transfer across the BES (transfer limit stability studies) or (2) load areas (local area limit stability studies). BPA believes that it is important to distinguish between transfer limit stability studies and local area limit stability studies. We recommend that the SDT add language to R4 to clarify that R4 applies to only transfer limit stability studies. BPA believes that the SDT should not allow UVLS in transfer limit stability studies, unless it is part of a designated RAS. We understand that FERC is describing transfer limit stability studies in Order 818. BPA therefore does not think that relying on UVLS, except where included in RAS, to increase transfer limits is appropriate. However, BPA believes that the SDT should allow UVLS in local area limit stability studies when failure of the UVLS would not result in cascading. If UVLS is not allowed in local area limit stability studies, the TOP may be forced to perform pre-contingency load shed.

Proposed: Planned use of UFLS or UVLS in establishment of stability limits is not allowed unless either of the following conditions is true:

- Pre-contingency load shedding would be required in order to meet BES performance criteria
- Load shedding is already included as part of an approved Remedial Action Scheme

Likes 0

Dislikes 0

**Response**

Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body

Answer No

Document Name

**Comment**

UVLS is a safety net. It should not be used as an acceptable tool to preserve acceptable system performance for credible contingencies unless it is part of a RAS. This is directly implied in FERC order 818. The wording should be: “R4.6 Describe...; neither the planned use of underfrequency load shedding (UFLS) or undervoltage load shedding (UVLS) is allowed in the establishment of stability limits.”

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5****Answer** No**Document Name****Comment**

Reclamation has concerns with possible misinterpretation of FAC-011-4 R4.2 and R5 as it implies Real-Time Assessments will include Stability. Reclamation also does not agree with the identified single Contingency and multiple Contingencies for use in determining stability limits because the TOP will inform the RC which Contingencies are credible.

Likes 0

Dislikes 0

**Response****Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie****Answer** No**Document Name****Comment**

UVLS is a safety net. It should not be used as an acceptable tool to preserve acceptable system performance for credible contingencies unless it is part of a RAS. This is directly implied in FERC order 818. The wording should be: "R4.6 Describe...; neither the planned use of underfrequency load shedding (UFLS) or undervoltage load shedding (UVLS) is allowed in the establishment of stability limits."

Likes 0

Dislikes 0

**Response****Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF****Answer** No**Document Name****Comment**

UVLS should remain a safety net and not be relied upon to provide acceptable system performance even for N-1-1 or N-2 contingencies.

Likes 0

Dislikes 0

**Response**

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

**Answer** No

**Document Name**

**Comment**

CenterPoint Energy Houston Electric, LLC (“CenterPoint Energy”) does not agree that the SDT should allow the use of UVLS in the establishment of stability limits. CenterPoint Energy believes that UVLS, like UFLS, is a “safety net” that is deployed as a preservation measure to maintain the reliability of the BES. UVLS should not be relied upon to establish limits in a planning environment, regardless of horizon.

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** No

**Document Name**

**Comment**

We support the ISO RTO Council Comments.

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer** No

**Document Name**

**Comment**

These comments are duplicated from comments made on question #3 above. CHPD would note that the language stated in the NERC summary from the 2003 report uses the term ‘transfer limits’, whereas in this SOL revision document it is described as ‘stability limits’. These two terms have different meanings, and the reference in the SOL document should be reviewed.

In the discussion about UFLS being not permitted in R4.6 (and by omission, UVLS being permitted) CHPD identifies that there seems to be confusion, or at least the potential for confusion, about the FERC order and acceptable use or non-use of these schemes. The first point is that there is a difference between a UFLS or UVLS program. From the NERC glossary of terms:

Undervoltage Load Shedding Program: An automatic load shedding program, consisting of distributed relays and controls, used to mitigate undervoltage conditions impacting the Bulk Electric System (BES), leading to voltage instability, voltage collapse, or Cascading. Centrally controlled undervoltage-based load shedding is not included.

Underfrequency Load Shedding Program is not described in the NERC glossary of terms, but is described in the purpose description for PRC-006:

To establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures

A UFLS or UVLS program is a coordinated use of UFLS or UVLS relays at multiple locations and are essentially used to prevent described conditions that are essentially the events of an IROL. The FERC order 818 states regarding UVLS programs:

“We conclude that UVLS **programs** (emphasis added) under PRC-010-1 are examples of such “safety nets” and should not be tools used by bulk electric system operators to calculate operating limits for N-1 contingencies.”

Again, in the “Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations”, on page 109 in the discussion about UFLS as a safety net, it simply states:

Safety nets should not be relied upon to establish transfer limits

CHPD would like clarification here in the proposed FAC-011-4 whether the references to UFLS (and UVLS) are meant to be to the UFLS (PRC-006) and UVLS (PRC-010) Programs or is it a reference to something else.

Likes 0

Dislikes 0

### Response

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

No

**Document Name**

**Comment**

UVLS should remain a safety net and not be relied upon to provide acceptable system performance even for N-1-1 or N-2 contingencies.

Likes 0

Dislikes 0

### Response

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

No

**Document Name**

**Comment**

We agree with FERC, Undervoltage load-shedding schemes (UVLS) are a “safety net” and should not be a tool used by Bulk Electric System operators in the derivation of stability limits. In some areas single contingencies include bus faults, stuck breakers and tower-contingencies.

Note: ERCOT does not support this response.

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer**

No

**Document Name**

**Comment**

Not sure how the SDT like entities to vote. The SDT rationale indicated that their understanding of FERC Order 818 prohibited the use UVLS in the establishment of stability limits for N-1 contingency. Hence, if the SDT understanding of the FERC order is correct that FERC doesn’t allow use of UVLS in the establishment of stability limits for N-1 contingency then it would also mean that using UVLS is also prohibited for N-2 contingencies. Indicating a “Yes” to Question 5 is contradicted to FERC Order 818. Indicating a “No” to Question 5 is in alignment with the SDT understanding of FERC Order 818.

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Xcel Energy agrees with the allowed use of UVLS assuming that its meaning is not restricted to the defined term UVLS Program and is used as an umbrella term that also includes local UVLS schemes. We would disagree if UVLS was intended to be synonymous with UVLS Program, since it would imply that use of local UVLS is not allowed. This illustrates the need to clarify what is the intended scope of UVLS in this standard.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer** Yes

**Document Name**

**Comment**

A stability limit may arise due to any type of multiple contingency (R5.3 and R5.4). UVLS should be a permissible mitigation method to either eliminate or increase stability limits such that transfers are not unduly constrained.

Likes 0

Dislikes 0

Response	
<b>Neil Swearingen - Salt River Project - 1,3,5,6 - WECC</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
Comment	
<p>Consistency is necessary between the mitigating actions permitted to maintain acceptable performance after N-1-1 and N-2 Contingencies in the Planning Assessment and Real-time Operations. The use of equal more limiting parameters prescribed in FAC-015-1 R1-R3 would be undermined by the prohibition of UVLS in response to more severe Contingencies when calculating SOLs.</p>	
Likes	0
Dislikes	0

Response	
<b>Scott Downey - Peak Reliability - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
Comment	
<p>Peak agrees that UVLS should be allowed for use to prevent adverse reliability impacts for Contingencies more severe than single P1 Contingencies and that such allowances should be addressed in the RC's SOL Methodology. However, Peak is concerned that the use of UVLS, RAS, and other automatic post-Contingency mitigation schemes are confined to the development of stability limits. Peak believes that the allowed use of RAS or other automatic post-Contingency mitigation actions should be extended beyond the establishment of stability limits to also apply to the development of Operating Plans in general. Because the current FAC-011-3 intermingles "how to operate the system" with SOL establishment, it can be argued that the current FAC-011-3 already allows the RC's SOL Methodology to extended beyond the establishment of stability limits to also apply to the development of Operating Plans. While Peak is supportive of the SDT's attempt to focus FAC-011-4 more on establishing Facility Ratings, System Voltage Limits, and stability limits used in operations and removing the aspects of FAC-011-3 that relate more to "how to operate the system", it seems the SDT inadvertently introduced an inconsistency by limiting the use of RAS (or automatic actions) for deriving stability limits only. Peak believes the RC should have the ability to determine the use of RAS and other automatic post-Contingency mitigation actions across the board – not just for stability limit establishment. This issue, however, does not seem appropriate to be addressed in the FAC family of standards.</p>	
Likes	0
Dislikes	0

Response	
<b>Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	

**Comment**

Given that FERC Order 818 clearly addresses the prohibition of using UVLS for calculating SOLs for single N-1 Contingencies, the SDT should consider a footnote within FAC-011-4 Part 4.6 that recognizes the FERC Order 818's prohibition on the use of UVLS in the determination of N-1 stability limits.

Likes 3 PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

Answer Yes

Document Name

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPA**

Answer Yes

Document Name

**Comment**

FMPA appreciates the SDTs efforts to provide the background and historical context of UVLS and the derivation of IROLS. Unfortunately the background information provided is confusing and does not make clear what the SDT is trying convey. The rational appears to try and draw a line between UFLS and UVLS when in fact they perform the same function, but for different quantities. The use of UFLS is allowed in certain PC studied events and we see no reason why UFLS shouldn't be used where appropriate. We agree that UVLS should be considered in the establishment of stability limits; however we also believe UFLS should be allowed under certain scenarios as it is in the planning horizon.

Likes 0

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3****Answer** Yes**Document Name****Comment**

UVLS is allowed to maintain system performance for some contingency events as described in Table 1 of standard TPL-001-4. The RC allowed use of UVLS should not conflict with standard TPL-001-4.

Likes 0

Dislikes 0

**Response****Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed****Answer** Yes**Document Name****Comment**

We agree with the allowed use of UVLS under certain conditions, but we strongly disagree with the way the SDT has addressed the allowed use of UFLS and UVLS in the new FAC-011. Since R5 gives some flexibility to the RC to choose its method for considering various types of contingencies (N-1, N-2, etc.) for both OPA/RTA and stability limits, the acceptable actions in R4.6 should not be limited as they can vary a lot depending on the types of contingencies considered. For example, a RC considering only the minimum single contingencies from R5.1 may not be allowed to use UFLS and UVLS actions for N-1... but another RC may choose to establish stability limits and limit transfers accordingly to address more stringent and rare multiple contingencies for which additional means like the action of UFLS/UVLS may be allowed (if that same RC would choose not to plan a stability limit for those contingencies, it would be acceptable to use UFLS/UVLS as a safety net?). Similarly, the reference to UVLS in SVL requirement R2 is not adequate, as SVL may comprise multiple levels, some for acceptable for single contingencies (without UVLS), some with some UVLS actions allowed for multiple contingencies.

We think that the consequence of the action (e.g. the use of non-consequential load loss as in TPL) should be used throughout the standards to allow the use of actions for specific contingencies (rather than referring to RAS, UFLS or UVLS).

Likes 0

Dislikes 0

**Response****Leonard Kula - Independent Electricity System Operator - 2****Answer** Yes**Document Name****Comment**

In the case of non-IROL SOLs we agree. However, it was noted that according to the background information above and in FAC-11-4, the use of UVLS is only considered in the context of establishing stability limits as per Requirement R4 Part 4.6.

The use of UVLS should also be acceptable to respect Facility Ratings and System Voltage Limits.

Likes 0

Dislikes 0

### Response

**Michael Jones - National Grid USA - 1**

**Answer**

Yes

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

### Response

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

Yes

**Document Name**

**Comment**

The establishment of stability limits must take into account automatic actions, including RAS and UVLS, since the loss of load can negatively impact system and unit stability performance. The SDT is correct in including this language in the proposed revisions.

Likes 0

Dislikes 0

### Response

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer**

Yes

**Document Name**

**Comment**

ERCOT asserts it is not appropriate to use UVLS for the purpose of increasing transfer capability for stability limits for N-1 Contingencies. However, it may be appropriate to use UVLS to determine the post-contingency impact in regards to establishment of an IROL vs. an SOL. It may also be appropriate to use UVLS in determining whether or not pre-contingency load shedding is warranted.

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

**Answer**

Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>John Seelke - LS Power Transmission, LLC - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Bridget Silvia - Sempra - San Diego Gas and Electric - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl & Member G&Ts**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Gladys DeLaO - CPS Energy - 1**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

Answer Yes

Document Name

<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Richard Vine - California ISO - 2</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
The California ISO supports the comments of the ISO/RTO Council Standards Review Committee	
Likes 0	
Dislikes 0	
<b>Response</b>	

6. If you have any other comments that you haven't already provided in response to questions 2-5, please provide them here.

Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2

Answer

Document Name

Comment

ERCOT suggests rewording proposed R2 to clarify that the SOL methodology establishes a method for determining which of the Facility Ratings provided by the owner should be used in operations, and not a method for establishing Facility Ratings. Please see the suggested language below.

"R2. Each Reliability Coordinator shall include in its SOL Methodology the method for Transmission Operators to determine **which of the** applicable owner ~~are to be used in operations~~ **are to be used in operations**. The method shall address the use of common Facility Ratings between the Reliability Coordinator and the Transmission Operators in its Reliability Coordinator Area.

With respect to R3.5, the meaning of the phrase "Address the use of" is unclear. The meaning of this phrase could be interpreted several different ways. ERCOT understands that the intent of the SDT is to ensure that, under the SOL methodology, the RC and its TOPs have a method to determine how the common set of System Voltage Limits between the RC and TOPs are to be used in operations, without becoming overly prescriptive in the requirement language. ERCOT suggests rewording proposed R3.5 to "Address how the Reliability Coordinator and its Transmission Operators use common System Voltage Limits in the Reliability Coordinator Area;"

ERCOT notes that parts 4.1.1.-4.1.4. of R4 list the *minimum* stability performance criteria that should be used in the method to determine stability limits in operations. To add clarity, ERCOT suggests adding a new part 4.1.5 that reads "**other stability performance criteria as required by the RC's SOL Methodology.**"

\*\*\*\*Please refer to the attached comment form for redlined language.

Likes 0

Dislikes 0

Response

Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators

Answer

Document Name

Comment

Requirement R7 of the proposed FAC-011-4 standard requires the RC to define the method and periodicity a TOP must communicate their SOLs back to the RC. In comparison, parts 5.3-5.5 of requirement R5 of FAC-014-3 identify such communications must occur on a mutually agreed upon time frame. We believe Requirement R7 should be changed to a mutually agreeable timeframe that reflects the frequency a Transmission Operator will

conduct its Operational Planning Analyses and Real

-time Assessments.

Likes 0

Dislikes 0

### Response

**Michael Jones - National Grid USA - 1**

**Answer**

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

### Response

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

**Document Name**

**Comment**

ATC has the following concerns with the proposed FAC-011-4 standard.

- R3.1: Requirement R3.1 contains the term "stations" and uses an unconventional designation of "buses/stations".
  - The NERC BES definition does not require entities to identify BES stations, which would make it problematic to use the requirement as written.
  - Additionally, "buses/stations" is an unclear designation where entities may understand that System Voltage Limits shall be created for all Facilities in a station, including both BES and non-BES Facilities in that station. We do not believe this is the intent of the SDT so this should be clarified.
  - Consider modifying R3.1 language to state "Require that BES buses have an associated System Voltage Limit except for the BES buses that may be excluded as specified in the [RC]'s SOL methodology."
- R3.2: Clarify R3.2, similar to R2 language, that "respect[ing] the Facility voltage Ratings" means determining the "applicable owner-provided Facility" voltage "Ratings to be used in operations". FAC-008-3 R2 and R3, in conjunction with the NERC "Facility Ratings" definition, requires the Generator Owners and Transmission Owners, respectively, to have voltage ratings for Facilities.

- R4.5 and a New R5.5: Requirements R4.2, R4.4, R4.5 and R5 become applicable to all TOPs through proposed FAC-014-3 R2.
  - Given the language of R4.4, which requires "instability risks" to be "identified", ATC believes the standard overreaches at R5 when it includes stability analysis within OPAs and RTAs as determined by the RC. TOP-001-3 R13 and R14 and TOP-002-4 R1 already require the TOP study SOLs in RTAs and OPAs, and inclusion of OPAs and RTAs in R5 is redundant with TOP-001-3 and TOP-002-4. The TOPs are the local experts on the stability of their systems and the R5 requirement language should not force additional stability analysis beyond TOP-001-3 and TOP-002-4 in the OPA and RTA on to a TOP if stability is not an issue for its system. ATC recommends striking "and performing Operational Planning Analysis (OPAs) and Real-time Assessment

A proposed revision to R5 to address this concern is the addition of a new requirement R5.5, which would read:

"R5.5 The applicability of the identified single Contingency and multiple Contingencies to its TOPs for use in determining stability limits."

- Similarly, given the applicability of the model requirements stated in R4.5 to the TOPs performing stability studies under the RC SOL methodology, through FAC-014-3 R2, clarify is needed that a TOP does not need to have a model of similar scale or scope as the RC will use. Per TOP-003-3, TOPs determine what data is needed to perform their OPAs and RTAs and the scope of this data is likely a subset of the RC's data, whether covered by IRO-010-2 or proposed FAC-011-4 R4.5. The revision should make it clear that the breadth of the RC's model does not necessarily need to be replicated by the TOP.

A proposed revision to R4.5 to address this concern would be the addition of the following language to the current proposed R4.5 language:

"... necessary to determine different types of stability limits, including applicability of the model detail to studies performed by its TOPs"

- New R4.x: The RC SOL methodology should include how "impacted" PCs and TOPs will be identified for stability SOLs. The "impacted" language appears in FAC-014-3 R4 and R5 and clarity is needed for all parties.
- R7: The second sentence of R7 should be struck as it is a redundant requirement to IRO-010-2 R1. SOL communication should be a part of the RC's data specification, which already contains a requirement regarding periodicity of communication.

R8: The requirement should contain a minimum notice provision to TOPs, such as "30 days prior to implementation". The current language would permit an RC to issue a revision the day prior to a material change in its SOL methodology, possibly impacting a TOP's compliance under FAC-014.

Likes	0
Dislikes	0
<b>Response</b>	
<p><b>Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb</b></p>	
Answer	
Document Name	
<b>Comment</b>	
None.	

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer**

**Document Name**

**Comment**

This standard in its current form allows a single entity the ability to dictate operating and effectively planning criteria. PNM believes that the development of the SOL methodology should be a joint effort including RCs, TOPs, and PAs.

**Propose revised R1 language:** Each Reliability Coordinator, in conjunction with each of its Transmission Operations and Planning Coordinators, shall develop a methodology for establishing SOLs (i.e., SOL Methodology) within its Reliability Coordinator Area.

PNM believes that R2 gives the RC the ability to dictate how an entity uses its own Facility Ratings effectively modifying FAC-008. There is no point for an entity to establish a Facility rating that cannot be used when operating the system. PNM recommends removal of R2 and revision of FAC-008-3 to address any concerns regarding a lack of common facility ratings methodology.

PNM questions the reliability basis for R3.3. PNM believes that there may be legit reasons to have the UVLS settings higher than the limits for certain critical contingencies. FERC order No. 818 specifies not using UVLS for N-1; however, this requirement doesn't have that qualifier. If the SDT feels this concept should be included in the standard the requirement should move under R4.6 and shall clearly specify that it is only applicable to single contingencies.

PNM finds no difference between R6.1 and R6.2.

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer**

**Document Name**

**Comment**

1. FAC-11-4, Requirement R3.3 should be clear that it's only pre-contingency System Voltage Limits which should be above in-service UVLS scheme settings. When depending on these schemes, a post-contingency System Voltage Limit may fall below a UVLS set point.
2. FAC-11-4 Requirement R3 Part R3.4 should either be revised or removed. Identifying the lowest allowable System Voltage Limit does not make sense from the context of minimum voltage SVLs (it should be the highest SVL identified). Perhaps "lowest" could be replaced by "most restrictive".
3. Where FAC-11-4 Requirement R3 Part 3.7 requires coordination between adjacent RCs for SVLs the FAC-11-4 Requirement R2 and R4 are

silent on respect to Facility Ratings and Stability limits. The RC should also be coordinating Facility Rating and Stability SOL actions with RCs within an Interconnection where applicable and this should be spelled out in FAC-11-4.

4. FAC-11-4 Requirement R4.1.2 should not force Reliability Coordinators into adopting transient voltage response criteria as part of their SOL Methodology. There are effective alternative means to guard against coincidental load loss and inadvertent tripping such as employing a relay margin criterion instead. Please remove or modify the requirement to recognize viable alternatives exist.
5. FAC-11-4 Requirement R4.1.2 should not force Reliability Coordinators into adopting transient voltage response criteria as part of their SOL Methodology. Transient voltage criterion results should be communicated to the Reliability Coordinator as outlined in FAC-15-1 Requirement R6 for consideration.
6. FAC-11-4 Requirement R4.1.3 introduces the term “angular stability”. Why is System damping considered separately? Angular stability consists of Transient Stability and Small Signal Stability, System damping would be part of Small Signal Stability.
7. FAC-11-4 Requirement R4.4 appears to ask for so much detail in the SOL Methodology (FAC-11-4 Rationale indicates enough information should be provided to duplicate the study) that it would be extremely onerous to satisfy given that the assumptions made for each operating zone of our RC area are vastly different given the common conditions and risks that exist. Detailed assumptions around instability risks, transfer levels, dispatch and system conditions are better left in study documentation pertaining to each specific zone. (Also see 5 below. We believe that there is value in sharing SOLs and associated study reports based on need/request.)

Additionally, the phrase “instability risks are identified” is misleading and does not really contribute to the objective of the requirement/standard. We assess that the intent of R4 is to present the method for determining stability limit, not to identify risks although they are the driver for developing stability limit. If the intent of that phrase is to present the stability concerns and/or the way to address such concerns through SOL determination, then we offer the following revised wording:

“Describe how stability limits are determined, considering levels of transfers, Load and generation dispatch, and the applicable System conditions including any changes to System topology such as Facility outages;”

8. FAC-11-4 Requirement R4.5 asks for a description of the critical details from other Reliability Coordinator areas necessary to determine stability limits. This is in conflict with FAC-14-3 R5 which no longer enforces that Reliability Coordinators *provide its SOLs and IROLs to those entities with a reliability need*. IRO-014-3 speaks to required information for Operating Plans, Procedures and Processes but does not address the need for critical details required for developing SOLs.

Furthermore, obtaining these critical details from other Reliability Coordinators and verifying their impact to SOLs through study can require a great deal of time and effort. It is recommended that more than 12 months be given in order to comply with this requirement. An appropriate time would be in the order of 24 – 36 months.

Obtaining these critical details would also be made much easier and the information would be much more valuable if all Reliability Coordinators (RC) were aligned in respecting the same set of contingencies and performance criterion for IROLs. For example, if an RC finds an instability issue due to a multiple contingency in a neighboring RC’s footprint there’s no requirement in FAC-11 and FAC-14 that supports forcing the neighbor to respect that contingency in the interest of interconnected system reliably as multiple contingencies are still left up to the RC’s discretion.

9. FAC-11-4 Requirement R5.2 leaves the door open for any potential contingency to be considered credible and will create an unnecessary burden in attempting to show compliance. Listing other specific single contingencies that could be deemed credible would improve this requirement.

An alternative to listing additional specific contingencies would be to revert to the existing language in FAC-11-3 Requirement R2.2 which specifies, at a minimum, which contingencies must be respected.

10. FAC-11-4 Requirement R6.2 is redundant with Requirement R6.1 in that a criterion is what is used to identify SOLs that are IROLs. Consider revising to combine the two sub-requirements to remove unnecessary duplication and confusion.

11.

FAC-11-4 Requirement R8 requires RCs to provision of their SOL Methodology to other entities. Given that the changes to the FAC-11-4 standard require substantial documentation work on the part of many RCs, more time should be given for compliance. At least 36 months is recommended. Furthermore, given there will be changes coming to the IROL requirements in this very same standard maybe the compliance period should be extended to the compliance deadline associated with that version of the FAC-11 standard to avoid the burden of duplicating a great deal of work.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

**Document Name**

**Comment**

FAC-011-4 Requirement R2 specifically states that the RC “shall include in its SOL Methodology the method for Transmission Operators to determine the applicable owner-provided Facility Ratings to be used in operations”. It goes on to identify that the method “shall address the use of common Facility Ratings between the Reliability Coordinator and the Transmission Operators in its Reliability Coordinator Area”. This requirement needs to be bounded such that the RC is not specifying in its methodology how a Transmission Operator and thus a Transmission Owner is required to rate its transmission facilities, up to and including the use of real time ratings. This would determine the amount of risk a Transmission Owner is subject to for its facilities. The standard should only specify the end objective and not the process to achieve that objective.

FAC-011-4 Requirement R3.2 introduces the concept of “Facility voltage Ratings”. This is not a defined term and leaves room for interpretation. There is no standard that requires TO’s to provide Facility Ratings for voltage. Before TOP’s are required to operate to Facility Ratings for voltage there should be a requirement for TO’s to provide Facility Ratings for voltage.

FAC-011-4 Requirement R4 seems to be somewhat duplicative of TPL-001-4 requirements R5 and R6. Consideration should be given to coordination of these requirements.

FAC-011-4 Requirement R5 includes language that requires the RC’s SOL Methodology to include “the method for identifying the single Contingencies and multiple Contingencies for use in determining stability limits and performing Operational Planning Analysis (OPA’s) and Real-time Assessments (RTA’s)”. Use of SOL’s in OPA’s and RTA’s is covered in TOP-001 and TOP-002. The concept of requiring how SOL’s should be used in OPA’s and RTA’s should be removed from this requirement.

FAC-011-4 R7 is redundant with IRO-010-2 R1. As the SDT notes in its preface to FAC-011-4, SOLs are inputs to OPA and RTAs. As such, R1 of IRO-010-2 already requires the RC to maintain a documented specification of the data necessary for it to perform its Operational Planning Analyses, Real-time monitoring and Real-time Assessments. This requirement included requirements for periodicity of providing the data. As such, R7 of proposed FAC-011-4 is redundant and should be deleted from the proposed standard.

Likes 0

Dislikes 0

**Response**

**Answer**

**Document Name**

**Comment**

FAC-011 R3.1

We do not agree with Part 3.1 as written since it implies that all BES (i.e. each and every) buses/stations within an RC or TOP area need to have a SVL. To meet this requirement, an RC/TOP will need to determine and list a large number of System Voltage Limits (SVLs), many of which have no impact on the BES voltage performance and hence serve little or no value to the determination of SOLs and/or IROLs.

The proposed definition of SVL is:

The maximum and minimum steady state voltage that provide for acceptable System performance.

With this definition, we interpret that there may be more than one SVL within an RC or TOP area, and that the identified SVLs are the limiting parameters with which to assess acceptable voltage performance on an RC or TOP system and their interconnected systems. An RC or TOP may identify a handful of buses/stations within their areas to be requiring the stipulation of SVLs, while deeming it unnecessary to stipulate SVLs on other buses/stations as acceptable voltage performance can be assessed/assured by observing the stipulated SVLs.

We therefore suggest Part 3.1 be reworded as follows:

R3.1. Require the identification of the critical BES buses/stations and associated System Voltage Limits with which to assess acceptable System performance

**FAC-011 R3.2**

This part is not required. Observing the more restrictive of the two – SVLs and Facility voltage Ratings, is the general practice for any RCs and TOPs. If the SDT wish to spell out this requirement explicitly, we propose the following wording:

3.2 Require that the more restrictive of the System Voltage Limits and the Facility voltage Ratings at the same bus/station be respected.

**FAC-011 R3.4**

This part is not required since all applicable SVLs (may be more than one) identified in the proposed Part 3.1 will be observed in the determination of SOLs. Identifying the lowest allowable SVL serves little or no purpose, or can be insufficient, in the determination of SOLs.

We suggest deleting Part 3.4

**FAC-011 R3.5,6,7**

The overall intent of these parts is to ensure the methodology specifies the use of common SVLs by those entities that need to determine SOLs around those buses/stations for which SVLs are identified. This can be achieved by combining them into the following proposed part:

3.5. Address the use of common System Voltage Limits by all entities in the Reliability Coordinator Area and the process to coordinate the determination of System Voltage Limits between neighboring Reliability Coordinators and Transmission Operators.

**FAC-011 R4.4**

The phrase “instability risks are identified” is misleading and does not really contribute to the objective of the requirement/standard. We assess that the intent of R4 is to present the method for determining stability limit, not to identify risks although they are the driver for developing stability limit. If the intent of that phrase is to present the stability concerns and/or the way to address such concerns through SOL determination, then we offer the following revised wording:

4.4 Describe how stability limits are determined, considering levels of transfers, Load and generation dispatch, and the applicable System conditions including any changes to System topology such as Facility outages;

**FAC-011 R5**

We interpret R5 to require identification of relevant single Contingencies AND multiple Contingencies for use in determining stability limits, and in performing Operational Planning Analysis (OPAs) and Real time Assessments (RTAs), and any Planning Coordinator identified contingency events for use in determining stability limits. As such, and considering the umbrella wording in R5 and that Parts 5.1 to 5.3 essentially cover all contingency events, we do not see the need for Parts 5.1, 5.2 and 5.3. To add clarity, we propose R5 be revised, to include Part 5.4, as follows:

R5 Each Reliability Coordinator shall include in its SOL Methodology the method for identifying the single Contingencies and multiple Contingencies for use in determining stability limits, and in performing Operational Plans Analyses (OPAs) and Real time Assessments (RTAs) considering the Contingency events provided by the Planning Coordinator in accordance with FAC requirement R6 to identify the Contingencies for use in determining stability limits.

Note: ERCOT does not support the response to Q6

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

The California ISO supports the comments of the ISO/RTO Council Standards Review Committee

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed**

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>1- We support the harmonization and approach to the new standards for the establishment of SOLs. However, we do have an important concern regarding the way the use of UVLS and UFLS in the establishment of stability limits was incorporated in the FAC-011-4 requirements. Although the requirements give good flexibility to the RC in identifying the set of contingencies applicable for SOL determination, they also impose performance requirements (SVLs and limited use of UFLS/UVLS) that do not make any distinction between the mandatory single contingencies and the complimentary multiple contingencies. Since the RC has flexibility to identify the relevant contingencies beyond the minimum requirements from R5.1.1, it should also have flexibility in the performance requirements for the allowed use of mitigation actions.</p> <p>2- We think the level of description in sub-requirements R3.X for System Voltage Limits is a burden without added benefit to reliability. Why so much details for SVL and not for Facility Ratings? R3.5-3.7 are not needed. If coordination is an issue, it should be addressed in a single requirement for the whole standard. R3.2 is redundant with the application of FR in R2. R3.3 is an issue that should be addressed with the allowed used of UVLS under certain circumstances, not captured by SVL requirements. Different SVLs may be used for different contingencies, not just N-1. R3.4 is redundant with SVL definition.</p> <p>3- R4.2 is a redundant cross-reference with 4.1 and R5 and does not bring any benefit to the remaining of the standard. R4.3 also is redundant since the RC has to describe how stability limits are established per R4 whether or not multiple TOPs are involved.</p> <p>4- Concerning the selection of contingencies, it is understood that the RC has full flexibility to determine the appropriate multiple contingencies for its System, correct? If that is the case, the proposed standard should allow the same flexibility for the performance requirements associated with those contingencies, namely the use of UVLS and UFLS.</p> <p>5- Although we appreciate the standard's flexibility regarding the stability performance requirements in R4.1, there seems to be a lack of guidelines and minimum expected performance as in TPL (no mention of Cascading, instability, etc.).</p>	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p><b>Comment 1:</b> It is a common concept in industry that the system should be operated as it is planned. The TPL-001-4 standard is one of the main regulatory drivers to the planning of the system, while the FAC standards regarding SOLs are important to the operation. While not possible to align the</p>	

two standards entirely, there are some features of the TPL standard which may have merit for the FAC-011 standard revision which have not been addressed in the draft of the proposed revision of FAC-011-4. These include:

1. Voltage Criteria (TPL-001-4 R5)
2. Instability Criteria (TPL-001-4 R6)
3. Division of responsibilities (TPL-001-4 R7)

The Voltage criteria is present in both FAC-011-3 and TPL-001-4. While TPL-001-4 voltage criteria requirement includes steady state, post-contingency deviation, and transient voltage response, the proposed FAC-011-3 criteria has additional performance metrics. This presents a risk where the system may not be operated as it was planned, because the criteria proposed in FAC-011-3 could be more conservative than the criteria required by TPL-001-4. The Standard Drafting Team should take this opportunity to consider aligning the operational criteria in the proposed FAC-011-3 with that of TPL-001-4. CHPD recognizes that due to the variety of unknowns encountered in real-time, operational criteria should have more flexibility than system planning.

**Comment 2:** CHPD is also concerned by the requirements in R3.6. and R3.7. regarding coordination of these system limits. This is not well addressed in the Standard Drafting Material as to the intent and scope of the proposed coordination. If the expectation is simply to share, post, or distribute limits, then that would be a helpful clarification. If the expectation is to conduct additional coordination studies involving multiple parties and the RC, then it is clearly a greater body of work and should be addressed further and clarified by the Standard Drafting Team as to the nature of these expectations.

CHPD is in favor of the removal of R3.6. and R3.7. altogether, because the coordination of these is already essentially performed through the use of the OPA and RTA.

**Comment 3:** The continued use of margins in FAC-011-4 (also found in FAC-011-3) is another instance of mis-alignment between TPL-001-4 and FAC-011-3. CHPD recognizes that there is value to include an assessment of margin in the operational realm, but is also aware that this is a difference in the way the system is planned vs. operated, and in some instances may result in the system being operated to support a particular margin that wasn't necessarily planned through TPL-001-4 or other planning standards. CHPD recognizes that due to the variety of unknowns encountered in real-time, operational criteria should have more flexibility than system planning.

**Comment 4:** Regarding the voltage criteria proposed in FAC-011-4 R4, there are a number of concerns.

1. The use of the term 'steady-state voltage stability' in 4.1.1. is confusing. Steady state analysis is different than stability analysis. Please clarify this term. If this is the feature described in the 2003 blackout report, this would be the assessment of reactive power support.
2. Angular stability criteria is a new metric to the FAC-011 standard; this concept is discussed to some extent in the 2003 blackout report as well. It is assumed that this is the analog to the FAC-011-3 requirement R1.2.4 "The system demonstrates *transient, dynamic, and voltage stability*" (emphasis added). CHPD would prefer the transient and dynamic language from FAC-011-3 to be maintained, rather than 'angular'. The system damping criteria in 4.1.4. and the transient voltage response in 4.1.2 could be also included as part of the angular (transient/dynamic) criteria, and does not need to be specifically enumerated.

If the Standard Drafting Team feels prescriptive requirements are required over performance based requirements, CHPD believes that this requirement could be simplified to something similar to "The Reliability Coordinator shall have voltage reactive margin criteria" and "The

Reliability Coordinator shall have stability criteria for a) transient voltage response, and b) system damping”

**Comment 5:** CHPD would also like to see a requirement for a definition of System Instability in the RC SOL methodology, analogous to the TPL-001-4 R6:

TPL-001-4 R6: “Each Transmission Planner and Planning Coordinator shall define and document, within their Planning Assessment, the criteria or methodology used in the analysis to identify System instability for conditions such as Cascading, voltage instability, or uncontrolled islanding.”

CHPD finds the text of TPL-001-4 R6 adequate to incorporate into the proposed FAC-011-4, with the Transmission Planner and Planning Coordinator references updated to Reliability Coordinator. This is particularly important since the Reliability Coordinator is to identify IROLs, which are these types of system phenomena.

**Comment 6:** Requirement in FAC-011-3 R3.4 – “Identify the lowest allowable System Voltage Limit;” seems duplicative or redundant to the proposed definition of System Voltage Limit – “The maximum and *minimum* steady System performance.”

The System Voltage Limit, in itself, should be the minimum allowable system voltage.

**Comment 7:** There is no mention of steady state thermal performance in the requirements for the Reliability Coordinator SOL methodology, nor language stating that SOLs shall not exceed associated Facility Ratings for thermal ratings (as found in the old FAC-010-3 R1.2). CHPD strongly encourages the Standards Drafting Team to add language supporting the operation within thermal limits to the proposed FAC-011-4 document, possibly in the vicinity of R4, which discusses stability and voltage criteria.

Likes 0

Dislikes 0

### Response

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer**

**Document Name**

**Comment**

It is unclear by the wording of R4 whether Transmission Operators determine stability limits or the RC. Based on R2 and R3, it is clear that the Transmission Operators develop Facility Ratings and System Voltage Limits based on the RC methodology. Based on R7, it says SOLs are communicated to the RC. One can assume this includes the stability limits as well, but R4 could be spelled out as a TOP task to develop stability limits (unless the door is intentionally being left open for the RC to determine stability limits in parallel to the TOP). It should be the TOP developing all of the

SOLs and communicating them to the RC. The RC should only drive the methodology and determine which of the provided SOLs qualify as IROLs.

Likes 0

Dislikes 0

### Response

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPA**

**Answer**

**Document Name**

**Comment**

FMPA recommends a feedback loop be introduced to FAC-011-4 for the RC's SOL methodology, such as found in FAC-008-3 R5. This will provide for better coordination between the PC and the RC, improve the effectiveness of the RC's Stability assessment, and allow consideration of best Stability analysis practices within the RC's footprint.

It is not clear what the phrase "for use in performing OPAs and RTAs" as used in R5 is intending. Are just the RC's OPAs and RTAs required to use this list of contingencies, or are all entities performing OPAs and RTAs within the RC footprint required to use this list? It does not make sense for every TOP to use the same extensive list of contingencies, since they may not have a need to model the System beyond their immediate TOP area.

Additionally, as currently worded R5 requires Stability analysis to be run on all contingencies that qualify as P1 events under TPL-001-4, which would result in a tremendous amount of work, but very little beneficial insight. The ability to apply engineering judgement to select those events that are expected to result in more severe System impacts is needed.

FMPA sees the use of the term "normal clearing" (lowercase, but note that the capitalized, defined term is used in the bulleted list) in 5.1.1 as problematic. Breaker failure schemes meet both the definition of Delayed Fault Clearing and the definition of Normal Clearing as they are currently written. Is it the SDT's intent to require breaker failure be included when determining stability limits? If not, FMPA recommends changing "with normal clearing" to "without Delayed Fault Clearing".

Likes 0

Dislikes 0

### Response

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer**

**Document Name**

**Comment**

The SPP Standard Review Group has a concern in reference to the drafting team intents for Requirement R2. From our perspective, this proposed language may suggest that the RC will receive the authority to tell the Transmission Owner how to determine their Facility Ratings. We would ask that

the drafting team provides more clarity on the intent for this Requirement.

The SPP Standard Review Group has a concern that the drafting team has potentially created a new term by adding the term “voltage” between Facility Ratings. We recommend that the drafting team uses the proposed phrase “voltage Facility Ratings. ”

The SPP Standards Review Group has a concern that the drafting team may have caused confusion by not including the actual FAC-011-3 Standard in the posted material. From our perspective, this creates an inconsistency and disconnection on what the drafting teams intents are for this project. For future reference, we would suggest the drafting team include all pertinent documentation to help provide clarity and demonstrate consistency on what their intents and goals are for the project.

The SPP Standards Review Group has a concern pertaining to the language in Requirement 6 Subpart 6.2. There is a confusion on which term “violating” or “Exceedance” should be used in the Subpart language. From our perspective, the drafting team has put a lot of emphasis on the term “Exceedance” as they have developed a definition for the term “SOL Exceedance” and we feel that the term “Exceedance” should be referenced in the language to promote consistency with the intents of the drafting team.

Likes 0

Dislikes 0

## Response

sean erickson - Western Area Power Administration - 1

Answer

Document Name

Comment

The language in Requirement R3 Part 3.2 that refers to “Facility voltage Ratings” is problematic. Splitting a NERC-defined term (Facility Ratings) with voltage isn’t a good practice. Suggested language: “the maximum and minimum voltage Facility Ratings”.

WAPA has a concern regarding the wording for **FAC-011-4 R4** and **R5** and the linkage between.

As written R4 implies **required** Stability assessments in all OPAs and RTAs.

**R4.** Each Reliability Coordinator shall include in its SOL Methodology the method for determining the stability limits to be used in operations. The method shall:

{C}4.1. ....

{C}4.2. Require that stability limits are established to meet the criteria specified in Part 4.1 for the Contingencies identified in Requirement R5.

**R5.** Each Reliability Coordinator shall include in its SOL Methodology the method for

identifying the single Contingencies and multiple Contingencies for use in determining stability limits and performing Operational Planning Analysis (OPAs) and Real-time Assessments (RTAs). The method shall include:

WAPA understands that was not the intent of the SDT and suggests this minor modification:

4.2. Require that **identified** stability limits meet the criteria specified in Part 4.1 for the Contingencies identified in Requirement R5 **for OPAs and RTAs. (Or)**

4.2. Require that stability limits are established to meet the criteria specified in Part 4.1 for the Contingencies identified in Requirement R5. And remove stability from the body of R5 and add a R5.5 (as initially suggested by the MRO-NSRF with WAPA's modification)

A proposed revision to R5 to address this concern is the addition of a new requirement R5.5, which would read: "R5.5 The applicability of the identified single Contingency and multiple Contingencies **as agreed to by** its TOPs for use in determining stability limits."

Lastly, it appears "additional" is missing from Requirement 5.3

**5.3.** Any **additional** types of multiple Contingency events identified for use in determining stability limits, or for use in performing OPAs and RTAs.

Without it, R5.3 is redundant to the body of R5.

Likes 0

Dislikes 0

### Response

**Anthony Jablonski - ReliabilityFirst - 10**

**Answer**

**Document Name**

**Comment**

**Even though ReliabilityFirst agrees with the changes in the standard, ReliabilityFirst provides the following comments for consideration related to the Violation Severity Levels sections:**

1. Violation Severity Levels

i. Requirement 8 VSL

- a. The VSL for Requirement R8 references Part 8.4 but there is no Part 8.4 in the standard. ReliabilityFirst believes that the timing piece is now incorporated into the main R8 Requirement and suggest the reference to Part 8.4 be removed from the VSL

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer**

**Document Name**

**Comment**

We support the ISO RTO Council Comments.

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer**

**Document Name**

**Comment**

With regard to the proposed Requirement R2, OGE believes that the proposed language could be mistakenly interpreted as giving the Reliability

Coordinator the discretion to impose unacceptable Facility Ratings to Transmission Operators. We would ask that the drafting team provides more clarity on the intent for this requirement.

Likes 0

Dislikes 0

### Response

**Sing Tay - Sing Tay On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5; - Sing Tay**

Answer

Document Name

### Comment

With regard to the proposed Requirement R2, OGE believes that the proposed language could be mistakenly interpreted as giving the Reliability Coordinator the discretion to impose unacceptable Facility Ratings to Transmission Operators. We would ask that the drafting team provides more clarity on the intent for this requirement.

Likes 0

Dislikes 0

### Response

**Scott Downey - Peak Reliability - 1**

Answer

Document Name

### Comment

Peak believes that requirement R5 should contain a subpart that requires the RC's SOL Methodology to include a description of the performance requirements for Contingencies more severe than the single Contingencies listed in part 5.1.1. In operations, the operating criteria for single Contingencies is often more stringent than that of more severe Contingencies such as breaker failure Contingencies or common structure Contingencies. Accordingly, some RC's only examine these more severe Contingencies for instability, Cascading, or uncontrolled separation, and they may not screen such severe Contingencies for thermal or voltage exceedances as described in the proposed definition of SOL Exceedance. The SDT could include a subpart 5.5 which states, "The minimum performance requirements for Contingencies more severe than those described in subpart 5.1.1."

Likes 0

Dislikes 0

### Response

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>With regard to the proposed Requirement R2, CenterPoint Energy believes that the proposed language could be mistakenly interpreted as giving the Reliability Coordinator the discretion to impose unacceptable Facility Ratings to Transmission Operators. CenterPoint suggests the following language for the proposed Requirement R2:</p> <p>“Each Reliability Coordinator shall include in its SOL Methodology a mutually agreeable method for Transmission Operators to determine the applicable owner <del>to be used for Facility Ratings</del>”</p> <p>With regard to the proposed Requirement R6.2, the existing legacy language uses the word “violating” in reference to an exceedance of an SOL that qualifies as an IROL. CenterPoint Energy recommends the SDT revise the wording so that there is no negative connotation to the context of the proposed requirement.</p> <p>CenterPoint Energy suggests the following language for the proposed Requirement R6.2:</p> <p>“R6.2 Criteria for determining when an SOL exceedance qualifies as an IROL and criteria for developing any associated IROL TV.”</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>Not directly related to questions 2-5, the NERC SAR related to Project 2015-09 identified the need “to address the issues identified in the FAC PRRs related to the application of the IROL term.” The proposed FAC-011-4 does not appear to have addressed the consistent application of IROL and simply maintains the language from FAC-011-3.</p>	
Likes 3	PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph
Dislikes 0	
<b>Response</b>	
<b>Neil Swearingen - Salt River Project - 1,3,5,6 - WECC</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	

SRP appreciates the efforts of the SDT and supports how the proposed changes generally reduce redundancy and provide clarity in communications. The SDT has also made improvements in further linking the planning and operational limits. SRP also has some recommendations for the SDT:

In FAC-011-4 R1, SRP recommends retaining the phrase “documented methodology”.

In FAC-011-4 4.4, SRP recommends requiring a process for acknowledgement of new/changing stability limits by operational personnel.

Likes 0

Dislikes 0

### Response

#### Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3

Answer

Document Name

Comment

*With regard to the proposed Requirement R2, OGE believes that the proposed language could be mistakenly interpreted as giving the Reliability Coordinator the discretion to impose unacceptable Facility Ratings to Transmission Operators. We would ask that the drafting team provides more clarity on the intent for this requirement.*

Likes 1

Tay Sing On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5;

Dislikes 0

### Response

#### John Seelke - LS Power Transmission, LLC - 1

Answer

Document Name

v4 LSPT Q7 attachment SOL, SOL Exceedance comments.docx

Comment

LSPT previously provided informal comments regarding the definition of “SOL Exceedance.” In response to question 7, separate attached comments proposed changes to R6 of proposed FAC-011-4 that are related to recommended changes in the SDT’s proposed SOL Exceedance definition. Those separate comments are attached to this question. Numbered paragraph 5 explains the recommended changes to R6.

Likes 0

Dislikes 0

### Response

#### Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>R4.6 specifically does not allow the use of UFLS in the establishment of stability limits, which is acceptable for all single contingencies and multiple contingencies as define by P1-P7 events in Table 1 of TPL-001-4. However, R5.4 requires consideration of contingency events by the PC in R6 of FAC-015-1. It could be that the Planning Assessment identified Cascading following an extreme event even with UFLS included. It's unclear whether the RC will consider this a valid stability limit or not. There should be limits placed on the scope of R6 of FAC-015-1 to P1-P7 events to allow the exclusion in R4.6 to remain.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>The intent of Proposed R2 needs more clarification as to which entities are using the same rating, for example: RC &amp; TOP? or RC &amp; all TOPs for the same facility? Is the intent to have all TOP's under the same RC using the same ratings methodology?</p> <p>The intent of Proposed R5.4 is unclear. We believe the Planning Coordinator should provide the established stability limit and the method by which the RC should assess the system against established stability limits. Maybe an example would help the understanding.</p> <p>Proposed R8.1 needs to define under what circumstances a nonadjacent Reliability Coordinator would have a reliability-related need for the Reliability Coordinator's SOL Methodology.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	

While we agree with the changes to FAC-011, we will be voting “No” because of our problems with FAC-015. These changes to FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.

Likes 0

Dislikes 0

## Response

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

**Document Name**

**Comment**

The first sentence of FAC-011-4 R2 should be clarified as follows: “Each Reliability Coordinator shall include in its SOL Methodology the method for Transmission Operators to determine which owner ~~is in operation. The proposed clarification~~ applicable to clarification makes it more obvious that the SOL Methodology only determines which owner-provided ratings are applicable for use in operations.

FAC-011-4 R3.1: Requirement R3.1 contains the term "stations" and uses an unconventional designation of "buses/stations."

- The NERC BES definition does not require entities to identify BES stations, which would make it problematic to use the requirement as written.
- Additionally, "buses/stations" is an unclear designation where entities may understand that System Voltage Limits shall be created for all Facilities in a station, including both BES and non-BES Facilities in that station. We do not believe this is the intent of the SDT so this should be clarified.
- Consider modifying R3.1 language to state "Require that BES buses have an associated System Voltage Limit except for the BES buses that may be excluded as specified in the RC's SOL methodology."

R4.5 and a new R5.5: Requirements R4.2, R4.4, R4.5, and R5 become applicable to all TOPs through proposed FAC-014-3 R2.

- Given the language of R4.4, which requires "instability risks" to be "identified," ATC believes the standard overreaches at R5 when it includes stability analysis within OPAs and RTAs as determined by the RC. TOP-001-3 R13 and R14 and TOP-002-4 R1 already require the TOP study SOLs in RTAs and OPAs, and inclusion of OPAs and RTAs in R5 is redundant with TOP-001-3 and TOP-002-4. The TOPs are the local experts on the stability of their systems and the R5 requirement language should not force additional stability analysis beyond TOP-001-3 and TOP-002-4 in the OPA and RTA on to a TOP if stability is not an issue for its system. ATC recommends striking “and performing Operational Planning Analysis (OPAs) and Real Time Assessments (R

A proposed revision to R5 to address this concern is the addition of a new requirement R5.5, which would read: "R5.5 The applicability of the identified single Contingency and multiple Contingencies to its TOPs for use in determining stability limits."

Similarly, given the applicability of the model requirements stated in R4.5 to the TOPs performing stability studies under the RC SOL methodology, through FAC-014-3 R2, clarity is needed that a TOP does not need to have a model of similar scale or scope as the RC will use. Per TOP-003-3, TOPs determine what data is needed to perform their OPAs and RTAs and the scope of this data is likely a subset of the RC's data, whether covered by IRO-010-2 or proposed FAC-011-4 R4.5. The revision should make it clear that the breadth of the RC's model does not necessarily need to be replicated by the TOP.

A proposed revision to R4.5 to address this concern would be the addition of the following language to the current proposed R4.5 language: "... necessary to determine different types of stability limits, including applicability of the model detail to studies performed by its TOPs."

FAC-011-4 R3.2: the term used is “Facility voltage Ratings.” The defined term is “Facility Ratings.” Remove voltage or reword to say “Facility Ratings

for voltage.”

FAC-011-4 R6.2: The term “violating” relates to previous Standard. Suggest: “Criteria for determining when violating an SOL qualifies as an IROL and criteria for developing any associated IROL Tv.”

FAC-011-4 R7 is redundant with IRO-010-2 R1. As the SDT notes in its preface to FAC-011-4, SOLs are inputs to OPA and RTAs. As such, R1 of IRO-010-2 already requires the RC to maintain a documented specification of the data necessary for it to perform its Operational Planning Analyses, Real-time monitoring and Real-time Assessments. This requirement included requirements for periodicity of providing the data. As such, R7 of proposed FAC-011-4 is redundant and should be deleted from the proposed standard.

FAC-011-4 R8 does not specify how far in advance of the effective date of the SOL Methodology the RC must provide its SOL Methodology to other entities. With other standard requirements that Transmission Operators develop their SOLs in accordance with the RCs SOL Methodology, changes that would require a new determination of SOLs based upon the new methodology could take some time to develop. It is recommended that the RC provide its methodology at least 30 days prior to the effective date to give entities an opportunity to evaluate changes to the methodology and implement any changes necessary to their SOLs prior to the effective date of the new SOL Methodology. Without sufficient time a registered entity could find themselves in violation of standard requirements due to lack of time to make changes to SOLs according to the new methodology.

Likes 0

Dislikes 0

### Response

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

### Response

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer**

**Document Name**

**Comment**

LES is concerned that Requirement R2 does not provide adequate assurance that the Reliability Coordinator will respect the Facility Ratings established by the TO, or the TO’s FAC-008 methodology. As written, the language is vague and appears to allow the RC to determine the Facility Ratings and voltage ratings that a TO must use. Additionally, based on the NERC definition of Facility Rating, there is a potential conflict between System Voltage Limits and Facility Ratings as both can utilize voltage ratings. At minimum, consideration should be given to potential inconsistencies

that may develop between FAC-011-4, FAC-008-3 and the definition of Facility Rating as a result of the project.

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer**

**Document Name**

**Comment**

While we agree with the changes to FAC-011, we are voting "No" because of our concerns with FAC-015. These changes to FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer**

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer**

**Document Name**

**Comment**

FAC-011-3 R2 and R3 add an additional translation layer on top of FAC-008 which already defines the determination of Facility Ratings. Could this additional translation allow for the RC to impose ratings and risk that the TO owning the facility is not willing to accept? An example is forcing the use of

dynamic ratings.

The language in R3.3 that requires the System Voltage Limit to be higher than the UVLS setting nullifies the ability to use local UVLS schemes. There exist local UVLS schemes that have been planned to operate at the emergency low voltage limit to protect local load and meet TPL requirements for prior outage (N-1-1) conditions. Effectively disallowing the use of local UVLS schemes to achieve acceptable system performance was likely not the intent. We suggest modifying the R3.3 language to address this unintended consequence. Requiring the operating limit to be more restrictive does not align with FAC-015 philosophy where the planning limits should be more restrictive.

Likes 0

Dislikes 0

**Response**

**Steven Mavis - Edison International - Southern California Edison Company - 1**

**Answer**

**Document Name**

**Comment**

Please refer to comments submitted by Robert Blackney on behalf of Southern California Edison.

Likes 0

Dislikes 0

**Response**

7. The SDT is proposing to divide existing Requirement R1 of FAC-014-2 into three requirements in FAC-014-3 to clearly indicate which entities have the responsibility for establishing Interconnection Reliability Operating Limits (IROLs) [the RC], System Operating Limits (SOLs) [the TOP] and stability limits that impact more than one TOP in its Reliability Coordinator Area [the RC] into proposed Requirements R1, R2, and R4, respectively. Do you agree with the proposed changes? If not, please explain.

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** No

**Document Name**

**Comment**

BPA supports R1 and R2. However, BPA does not agree with breaking out R4. It should be the impacted TOPs' responsibility to coordinate, establish and agree upon the stability limits, not the RC's.

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** No

**Document Name**

**Comment**

Xcel Energy feels that R2 should be expanded so that the RC has a role for SOLs that impact more than one TOP, similar to R4. The alternative would be for R4 to be expanded beyond "stability limit" to be more general SOL that impacts more than one TOP. An example would be an interface/path/flowgate that is thermal limited below its Facility Rating due to other thermal (or voltage) limited transmission facilities in multiple TOPs. This concern would likely be addressed if the revised SOL definition is approved and is effective simultaneously with the FAC standards - we recognize that the revised SOL definition makes it clear that the MW limit for an interface/path/flowgate is an SOL only if it is a stability limit.

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer** No

**Document Name**

**Comment**

The NSRF is not convinced the RC's have the experience necessary to determine stability limits where the limits impact more than one TOP. Although

it may make sense to designate the RC as responsible, historically this has been done by TOPs cooperating with each other to determine the limits. The concern is the RCs may not understand the nuances associated with all of their footprint.

Likes 0

Dislikes 0

### Response

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name** Chelan PUD

**Answer**

No

**Document Name**

**Comment**

This is a helpful proposed clarification. However, in the definition of IROL from the NERC glossary an IROL is:

“A System Operating Limit that, if violated, could lead to instability, uncontrolled separation, or Cascading outages that adversely impact the reliability of the Bulk Electric System.”

Therefore, one must calculate what the SOL is first, before determining whether the SOL is an IROL. If the RC is not required to calculate SOLs, how will it be able to determine whether or not the SOLs are IROLs? CHPD would propose that both TOPs and the RC calculate SOLs, but only the RC has the duty to determine which SOLs are IROLs. This would be consistent with the current FAC-014-2 approach and ensure that the RC is calculating SOLs so it can identify which SOLs are IROLs. If the RC is not calculating SOLs, there is the potential risk that the RC could miss an SOL which should be classified as an IROL.

Likes 0

Dislikes 0

### Response

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name** FMFA

**Answer**

No

**Document Name**

**Comment**

FMFA appreciates the desire to clearly indicate which entities have the responsibility for establishing SOLs and IROLs, but believes additional clarity in FAC-014-3 is needed. First, it is not clear who has the responsibility to run the stability studies, or how often to run them. Another concern is that IROLs, SOLs, and stability limits are not mutually exclusive. Are TOPs precluded from identifying IROLs?

Likes 0

Dislikes 0

<b>Response</b>	
Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
We agree with R1 and R2, but we don't see the need to specifically require the RC to establish stability limits per R4 when more than one TOP is impacted. This should be addressed through the determination of SOL/IROLs per R1 and R2 in FAC-014 and the requirement that the methodology from FAC-011 include the method for determining stability limits. There is an unnecessary redundancy.	
Likes	0
Dislikes	0

<b>Response</b>	
Leonard Kula - Independent Electricity System Operator - 2	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
Without stating requirements for performance criteria and assessment methodology for what SOLs qualify as an IROL, the roles of each entity in this matter remains unclear.	
Likes	0
Dislikes	0

<b>Response</b>	
Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
PNMR agrees with R1 and R2 but proposes the following language for R4:  Each Reliability Coordinator, in conjunction with the impacted Transmission Operators, shall establish stability limits to be used in operations when the limit impacts more than one Transmission Operator in its Reliability Coordinator Area in accordance with its SOL Methodology.	
Likes	0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer** No

**Document Name**

**Comment**

ATC believes these changes are acceptable if the SDT adds a new requirement R4.x to FAC-011-4 as explained above in our comments to question #6 where we recommend a new requirement that requires the RC to identify how they will determine "impact[ed]" entities.

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** No

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer** Yes

**Document Name**

**Comment**

While AEP does not object to R1 as proposed, we believe that Transmission Operators should be afforded opportunity to provide input into the process, even if not specifically designated within the standard.

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer** Yes

**Document Name**

**Comment**

Peak agrees with the suggested approach. One point of clarification. Proposed requirement R4 states, "Each Reliability Coordinator shall establish stability limits to be used in operations when the limit impacts more than one Transmission Operator in its Reliability Coordinator Area in accordance with its SOL Methodology." Peak interprets this language to allow the RC the flexibility to either calculate this type of stability limit itself (i.e., the RC performs the calculation), or to utilize a TOP-calculated stability limit as the "established" stability limit, provided that the RC and the impacted TOPs accept its use. Please confirm that Peak's interpretation is accurate.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer** Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer** Yes

**Document Name**

**Comment**

While Duke Energy agrees with the proposal of dividing the existing R1 into three requirements, we request the SDT to consider whether there is a reliability gap in allowing only the RC to establish IROLs. We recommend the drafting team consider the following:

R2. Each Transmission Operator shall establish SOLs (including the subset of SOLs that are IROLs) for its portion of the Reliability Coordinator Area

consistent with its Reliability Coordinator's SOL Methodology.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

Yes

**Document Name**

**Comment**

Provided that the RC is limited in its ability to usurp the Transmission Owners rights in determining how Facility Ratings are determined, which are major components in SOL determination, than this proposal is acceptable. If the RC is not limited, then this is not acceptable as the RC should not be given the latitude to determine the amount of risk a Transmission Owner will accept through setting their methodology in determining an SOL, specifically a Facility Rating. The standard should only specify the end objective and not the process to achieve that objective.

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Wendy Center - U.S. Bureau of Reclamation - 5</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

**Response**

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer** Yes

**Document Name**

<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>John Seelke - LS Power Transmission, LLC - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Sing Tay - Sing Tay On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5; - Sing Tay</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 3	PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph
Dislikes 0	

**Response**

**Julie Hall - Entergy - 6**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl & Member G&Ts**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group**Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****sean erickson - Western Area Power Administration - 1****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group**Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

The California ISO supports the comments of the ISO/RTO Council Standards Review Committee

Likes 0

Dislikes 0

**Response**

8. Existing FAC-014-2, Requirement R5, R5.2 requires the Transmission Operator (TOP) to provide its SOLs to its Reliability Coordinator (RC) and Transmission Service Providers (TSPs) that share its portion of the RC Area. The SDT is proposing in Requirement R3 of FAC-014-3 to exclude the TSPs from that communication chain. Other requirements in existing standards (MOD-028-2, Requirement R7, MOD-029-2a, Requirement R4, and MOD-030-3, Requirement R2.6) require the TOP to provide the Total Transfer Capabilities (TTCs), Total Flowgate Capabilities (TFCs), along with supporting information and assumptions to TSPs. Because the TTCs and TFCs already reflect the impact(s) of any SOLs, the SDT deemed retention of the existing language unnecessary. Do you agree with the proposed change? If not, please explain.

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer** Yes

**Document Name**

**Comment**

ITC agrees with the exclusion of TSPs from Requirement R3 of FAC-014-3.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer** Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer** Yes

**Document Name**

**Comment**

Peak agrees with excluding the TSPs from the SOL communications path.

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer** Yes

**Document Name**

**Comment**

NPPD agrees with removing TSPs from the notification requirements. The remainder of the requirement is also redundant with IRO-010-2 R1. As SOLs are a necessary input for OPA and RTA, the communication of them is required in the RC's data specification. As a result, including them here is redundant and unnecessary. Yes, the RC needs to know about changes to SOLs. The mechanism to notify them already exists in the data specification required by IRO-010-2 R1.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

BPA supports NERC urging FERC to adopt Docket Number RM14-7-000, Comments of NERC in Response to NOPR MOD-001-2 (Available Transmission System Capability).

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer** Yes

**Document Name**

**Comment**

AEP believes the proposed changes would be beneficial and provide clarity.

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento**

Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Lauren Price - American Transmission Company, LLC - 1 - MRO,RF

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

Gladys DeLaO - CPS Energy - 1

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

<b>Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl &amp; Member G&amp;Ts</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPA</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Bridget Silvia - Sempra - San Diego Gas and Electric - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	

<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Julie Hall - Entergy - 6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 3	PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph
Dislikes 0	

**Response**

**John Seelke - LS Power Transmission, LLC - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro**Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name** Southern Company**Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Kayleigh Wilkerson - Lincoln Electric System - 5**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1****Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Richard Vine - California ISO - 2****Answer****Document Name****Comment**

The California ISO supports the comments of the ISO/RTO Council Standards Review Committee

Likes 0

Dislikes 0

**Response**

9. The SDT relocated the reliability objectives of existing Requirement R6 of FAC-014-2 into Requirement R6 of proposed Reliability Standard FAC-015-1 such that all Planning Coordinator and Transmission Planner responsibilities will be housed within one standard. Do you agree with the proposed change? If not, please explain.

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** No

**Document Name**

**Comment**

BPA does not see the need for a new planning standard. The objective could be better accomplished by moving the requirement to existing planning standards. The annual system assessment is required to be provided to the RC per NERC standard IRO-017-1. The RC is in a better position to communicate with affected TOPs in the RC area if instability or uncontrolled islanding is identified in the system assessment.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro**

**Answer** No

**Document Name**

**Comment**

Manitoba Hydro agrees that the Planning Coordinator responsibilities do not need to be in FAC-014-2. Manitoba Hydro would prefer if the responsibilities are related to FAC-013 or TPL-001 that the requirements be housed in one of those standards rather than create a new standard.

Likes 0

Dislikes 0

**Response**

**John Seelke - LS Power Transmission, LLC - 1**

**Answer** No

**Document Name**

**Comment**

See the response to Q16.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer** No

**Document Name**

**Comment**

ITC agrees with the retirement of FAC-010 and modifications to FAC-014-4 however does not believe that FAC-015 is necessary.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer** No

**Document Name**

**Comment**

PNMR believes that this requirement should be placed in TPL-001 since it is related to the Planning Assessment.

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

SCE finds the new SOL/IROL construct to be clearer and more useful. As the drafting team points out, Operations Time Horizon SOLs are not necessarily included in Planning Assessments required by TPL-001-4. SCE supports the reliability objectives established by FAC-015-1 and the relocation of these objectives from the in-effect FAC-014 to the proposed FAC-015.

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer** Yes

**Document Name**

**Comment**

Peak supports having the planners' requirements contained in one standard.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer** Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Michelle Amarantos - APS - Arizona Public Service Co. - 1</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Neil Swearingen - Salt River Project - 1,3,5,6 - WECC</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

<b>Response</b>	
Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes	0
Dislikes	0
<b>Response</b>	
Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes	0
Dislikes	0
<b>Response</b>	
Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes	3
	PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph
Dislikes	0
<b>Response</b>	
Julie Hall - Entergy - 6	
Answer	Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Bridget Silvia - Sempra - San Diego Gas and Electric - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

<b>Response</b>	
<b>Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes	0
Dislikes	0

<b>Response</b>	
<b>Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPA</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes	0
Dislikes	0

<b>Response</b>	
<b>Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl &amp; Member G&amp;Ts</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes	0
Dislikes	0

<b>Response</b>	
<b>Quintin Lee - Eversource Energy - 1, Group Name Eversource Group</b>	

Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
<b>Response</b>	
sean erickson - Western Area Power Administration - 1	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
<b>Response</b>	
Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group	
Answer	Yes
Document Name	
Comment	
Likes	0
Dislikes	0
<b>Response</b>	
David Jendras - Ameren - Ameren Services - 3	
Answer	Yes
Document Name	
Comment	
Likes	0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name** RSC no Dominion NextERA Con-Ed

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Gregory Campoli - New York Independent System Operator - 2</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Leonard Kula - Independent Electricity System Operator - 2</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1,**

**5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

The California ISO supports the comments of the ISO/RTO Council Standards Review Committee

Likes 0

Dislikes 0

**Response**

10. If you have any other comments that you haven't already provided in response to questions 7-9, please provide them here.

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

**Document Name**

**Comment**

ATC has the following additional comments on proposed FAC-014-3:

- R3: The SDT should strike requirement R3 since the content of this requirement is already covered by NERC standard IRO-010-2 R1 (i.e. this information or data is needed by the RC to perform its OPA and RTA as covered by R1.1).

R4 and R5.2 through R5.4: The term "impacts" and "impacted" are used without definition. See ATC's comments to question #6 above about the need for a new sub-requirement under R4 of FAC-011-4 to ensure how impacted parties are identified is addressed in the RC's SOL methodology.

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer**

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer**

**Document Name**

**Comment**

1. We believe it will be more efficient for RCs to make their SOLs available to impacted entities through automated mechanisms, such as an on-line database portal, rather than providing the information as proposed. The proposed expectation would require direct communication between the RC and the impacted entities that would be documented through electronic communications or voice recordings. This would be a compliance burden on all entities involved. Moreover, this approach could introduce a natural latency when the RC provides the SOL

information to external entities. This latency could impact a PC or TP who could have partially completed a Planning Assessment, only to find that the SOL data they used is outdated and that the assessment will need to be restarted. By pushing this information to an on-line portal, impacted entities can then pull the most current data set for monitoring and assessment purposes. We believe this change would convert the requirement to a more risk-based performance approach that shifts the focus of risk to the availability of the automated mechanisms.

2. We observe that part 5.4 is the only portion of this requirement that expects the RC to provide updated information to external entities. We ask the SDT to clarify this discrepancy in the other external entities identified in the requirement.
3. The proposed standard appears to miss the possible coordination between RC and an adjacent RC, particularly in the instance that an impacted TOP from an adjacent Reliability Coordinator Area would need information related to SOLs. There currently is no obligation listed under Requirement 5 that captures this instance.
4. We ask the SDT to move the IROL-related critical information to Requirement R1 where the RC is obligated to establish the IROL. The references listed under Requirement R5 are confusing, as they only pertain to the PC.
5. For part 5.4, we believe the RC should provide the value of the stability limit or IROL, as identified in part 5.2.1, to an impacted TOP within its Reliability Coordinator Area.
6. We believe Requirements R1 and R6 should be combined, as there is no expected timeframe identified when a RC is required to provide a list of generation or transmission Facilities that are critical to the derivation of the IROL. Transmission Owners and Generation Owners could have compliance implications if the information is not provided in a timely fashion. The provision of this information should be done as soon as the IROL is established.

Likes 0

Dislikes 0

### Response

Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2

Answer

Document Name

Comment

Comments: ERCOT provides the following additional feedback:

FAC-014:

ERCOT suggests the following clarification to R4 to simplify the language and to avoid the possible interpretation that the RC's authority (or duty) to establish stability limits that impact multiple TOPs would only be triggered in the event one or more TOPs has preliminarily established such a stability limit pursuant to its obligation under R2:

R4. Each Reliability Coordinator shall establish **any** stability limit to be used in operations **in accordance with its SOL Methodology if that** limit impacts more than one Transmission Operator **in that** Reliability Coordinator Area.

\*\*\*\*Please refer to the attached comment form for redlined language.

Likes 0

Dislikes 0

<b>Response</b>	
Leonard Kula - Independent Electricity System Operator - 2	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>1. FAC-14-3 Requirement R5 no longer enforces that Reliability Coordinators <i>provide its SOLs and IROLs to those entities with a reliability need</i>. IRO-014-3 speaks to required information for Operating Plans, Procedures and Processes but does not address the need for critical details required for developing SOLs such as study reports and other related operating documentation. This information is necessary in order to satisfy requirements in FAC, TOP and IRO standards where there's potential impact to neighboring RC areas.</p> <p>Furthermore, obtaining these critical details from other Reliability Coordinators and verifying their impact to SOLs through study can require a great deal of time and effort. It is recommended that more than 12 months be given in order to comply with this requirement. An appropriate time would be in the order of 24 – 36 months.</p> <p>2. FAC-14-2 Requirement R6 had been the one requirement tying identification of multiple contingencies in the Planning Horizon to those that must be considered in Operations. This requirement had ensured that if instability as a result of a multiple contingency was identified in the Planning Assessment then that contingency should be deemed credible. It was the best vehicle to use to influence another RC/TOP area within the Interconnection to recognize a multiple contingency within its area if shown to impact other areas. In the interest of both assistance in respecting an IROL and operating a more reliable interconnected system some language to this effect should remain in FAC-14-3. The language should be expanded to reflect that multiples may be identified in the Operations Horizon as well through studies performed in deriving SOLs including those performed for OPA and RTA. Restricting the language to the planning horizon is insufficient as the planning horizon covers a more limited scope of system configurations realized in operations.</p>	
Likes	0
Dislikes	0
<b>Response</b>	
Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
None.	
Likes	0
Dislikes	0
<b>Response</b>	

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed**

**Answer**

**Document Name**

**Comment**

The use of the existing wording from FAC-014-2 "Facilities that are critical to the derivation of the IROL" causes a lot of confusion as to the mean of the word "critical". The corresponding list of Facilities is referenced by other standards (e.g. CIP-002) with a major impact on compliance to those standards. With lack of clarity and guidelines on the intent regarding the "critical Facilities" that should be included per this requirement. The addition of "stability limits" causes even more confusion, as it is now understood that Facilities impacting SOLs stability limits not considered IROLs should be included on that list. The SDT should rework the purpose and rationale behind those requirements.

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

The California ISO supports the comments of the ISO/RTO Council Standards Review Committee

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

**Document Name**

**Comment**

Requirement R5.5 is redundant with TOP-003-3 R1. This is input data necessary to perform OPA and RTA and so the communication of that data is already covered under this requirement. To include it in FAC-014-2 would be redundant and unnecessary.

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer**

**Document Name**

**Comment**

R4 - Developing stability limits should be the responsibility of the TOP, not the RC. TOPs should have greater familiarity with the studies and model details that are used to develop stability limits. The RC should only be involved where there is a discrepancy or question involving multiple TOPs having differing limits.

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name** Chelan PUD

**Answer**

**Document Name**

**Comment**

**Comment 1:** The use of the term ‘stability limit’ in the proposed FAC-014-3 R4, R5.2 and R5.3 is ambiguous. In the definition of ‘Reliable Operation’ in the NERC glossary of terms, it lists:

“Operating the elements of the [Bulk-Power System] within equipment and electric system thermal, voltage, and stability limits... “

And from Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations, page 8:

There are two types of stability limits: (1) Voltage stability limits... (2) Power (angle) stability limits...

Clearly there are multiple meanings of stability limits. CHPD requests the Standard Drafting Team to use additional language to clarify which ‘stability limits’ are meant here. The definition of Stability Limit, as a capitalized term in the NERC glossary of terms, unfortunately defines the Capitalized term ‘Stability Limit’ by the lowercase term ‘stability limit’, so of itself is not very useful as to identifying whether this is a thermal, voltage, or transient / dynamic type of phenomenon.

**Comment 2:** CHPD would recommend the following language to be used in the proposed FAC-014-3 R5.1. and 5.2 in place of, or in addition to the ‘once every twelve calendar months’ language. ‘or within 30 calendar days (or a later date if specified by the requester)’ to be consistent with the construct found in FAC-008-3 R8.2. Given the importance of SOLs (FAC-014-3 R5.1) and IROLs (FAC-014-3 R5.2), utilities may need ratings in a much more operationally appropriate timeframe than 12 calendar months.

**Comment 3:** In FAC-014-3 R5.5, the RC is required to provide SOLs for its RC area. However, the RC is not actually required to calculate SOLs (only IROLs). Therefore, any SOLs the RC has would be provided by the respective Transmission Operators in the RC area, as specified under FAC-014-3 R3. The Standards Drafting Team may consider revising R5.5. to have Transmission Operators provide SOLs to other Transmission Operators, rather than the RC providing these SOLs.

**Comment 4:** It would be useful to the PC for FAC-014-3 R5.2 to also include a sub-requirement for the RC to provide the PC with a description of the conditions where the IROL has been observed or was expected to be observed. For example, 'in Winter with heavy south to north transfers', etc. This way, the Planning Coordinator can better test its models to assess whether it can duplicate these conditions in the planning horizon.

**Comment 5:** The language in FAC-014-3 R6 'Each Reliability Coordinator that is impacted by an IROL...' is unclear by the meaning of 'that is impacted by an IROL'. It is thought that this probably could be removed from the requirement and the function of the requirement would be unaffected.

**Comment 6:** The requirement for the Transmission Operator to provide SOLs in R3 is likely duplicative to requirements in IRO-010-2, R1. This requirement (IRO-010-2 R1) gives the Reliability Coordinator the authority to request this data. We are already providing these to the RC under IRO-010-2 R3, which requires us to provide this data in accordance with IRO-010-2 R1.

Likes 0

Dislikes 0

### Response

#### Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1

Answer

Document Name

Comment

OGE agrees with the proposed changes in FAC-014-3. However, we disagree with the current proposed definition of SOL Exceedance. As indicated by multiple entities during the SOL/SOL Exceedance comment period, an exceedance can only occur if it happens in Real-time and therefore the SOL Exceedance definition should not incorporate the concept of predicted exceedances. It is inappropriate to approve a NERC standard without a clear understanding of how the definitions will impact the standard. OGE remains concerned with unintended impacts of separating the standard and the proposed SOL & SOL Exceedance definitions.

Likes 0

Dislikes 0

### Response

#### Shivaz Chopra - New York Power Authority - 1,3,5,6

Answer

Document Name

Comment

Supporting NPCC comments

Likes 0

Dislikes 0

### Response

**Anthony Jablonski - ReliabilityFirst - 10**

**Answer**

**Document Name**

**Comment**

**Even though ReliabilityFirst agrees with the changes in the standard, ReliabilityFirst provides the following comments for consideration related to the Violation Severity Levels sections:**

1. Violation Severity Levels

i. Requirement 3 VSL

- a. The VSL for Requirement R3 is in disconnect with the language in Requirement R3. The VSL for Requirement R3 references “the periodicity at which the RC needs such information” and Requirement R3 simply talks about “in accordance to the Reliability Coordinator’s SOL Methodology.” Requirement R7 in FAC-011-1 only notes, “The method shall address the periodicity of SOL communication.” ReliabilityFirst recommends structuring the VSLs as follows (this is an example of the “lower VSL”):

- 1. The Transmission Operator provided its SOLs to its Reliability Coordinator, but was late by less than or equal to 10 calendar days.

ii. Requirement R6 VSL

- a. The first part of the VSL for Requirement R6 (“The Reliability Coordinator with an established IROL, or the Reliability Coordinator impacted by a neighboring Reliability Coordinator IROL”) does not match the language of Requirement R6. ReliabilityFirst recommends the beginning of the VSL state:

- 1. Reliability Coordinator that is impacted by an IROL did not provide...

Likes 0

Dislikes 0

**Response**

**Sing Tay - Sing Tay On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5; - Sing Tay**

**Answer**

**Document Name**

**Comment**

OGE agrees with the proposed changes in FAC-014-3. However, we disagree with the current proposed definition of SOL Exceedance. As indicated by multiple entities during the SOL/SOL Exceedance comment period, an exceedance can only occur if it happens in Real-time and therefore the SOL Exceedance definition should not incorporate the concept of predicted exceedances. It is inappropriate to approve a NERC standard without a clear

understanding of how the definitions will impact the standard. OGE remains concerned with unintended impacts of separating the standard and the proposed SOL & SOL Exceedance definitions.

Likes 0

Dislikes 0

### Response

#### John Seelke - LS Power Transmission, LLC - 1

Answer

Document Name

Comment

The IROLs and SOLs calculated in FAC-014-3 are computed per the RC's SOL Methodology required per R1 in FAC-011-4. The longest time horizon for computing these is an Operational Planning Analysis, which addresses next-day operations. The SDT has not explained why RCs must provide SOLs and IROLs to PCs (R5.1) and other information (see R5.2) and least once every 12 months. Remember, the longest time frame for this information is next-day operations. However, requiring RCs to communicate their SOL Methodology to PCs and TPs per R8.2 in FAC-011-4 has some reliability benefit in that it communicates an operator's tools to planners.

Likes 0

Dislikes 0

### Response

#### Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3

Answer

Document Name

Comment

*OGE agrees with the proposed changes in FAC-014-3. However, we disagree with the current proposed definition of SOL Exceedance. As indicated by multiple entities during the SOL/SOL Exceedance comment period, an exceedance can only occur if it happens in Real-time and therefore the SOL Exceedance definition should not incorporate the concept of predicted exceedances. It is inappropriate to approve a NERC standard without a clear understanding of how the definitions will impact the standard. OGE remains concerned with unintended impacts of separating the standard and the proposed SOL & SOL Exceedance definitions.*

Likes 0

Dislikes 0

### Response

#### Neil Swearingen - Salt River Project - 1,3,5,6 - WECC

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>In FAC-014-3, R4 as worded, entities that establish stability limits in advance of real-time (as allowed) may not have a mechanism to respond with mitigation plans or active 'tools' to respond when the RC communicates a newly emerged limit in near real-time. SRP recommends requiring the RC to guide mitigation when stability limits are changed in near real-time.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>R 5.5 is redundant with TOP-003-3 R1. This is input data necessary to perform OPA and RTA and so the communication of that data is already covered under this requirement. To include it in FAC-014-2 would be redundant and unnecessary. As such, it is recommended that part 5.5 of R5 of FAC-014-2 be deleted.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>While we agree with the changes to FAC-014, we will be voting "No" because of our problems with FAC-015. These changes to FAC-010, FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer**

**Document Name**

**Comment**

We suggest the intent of Proposed R6 be further clarified. In particular, the meaning of the word 'derivation' is ambiguous. We recommend changing 'derivation' to 'determination' of the limit.

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer**

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body**

**Answer**

**Document Name**

**Comment**

While we agree with the changes to FAC-014, we are voting "No" because of our Concerns with FAC-015. These changes to FAC-010, FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
Recommend R5.5 be deleted. This is input data needed to perform OPA and RTA per the data specification developed in TOP-003-3 R1.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
None	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Steven Mavis - Edison International - Southern California Edison Company - 1</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
Please refer to comments submitted by Robert Blackney on behalf of Southern California Edison.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC</b>	
<b>Answer</b>	
<b>Document Name</b>	

**Comment**

The existing SOL/IROL construct and specifically Planning Time Horizon SOLs create duplicative and unessential work. The proposed new construct is a major improvement and aligns the SOL/IROL reliability standards with best practices and the latest revision of TPL-001.

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer**

**Document Name**

**Comment**

As noted in our response to Question 7, the revised SOL definition is vital to ensure clear and accurate interpretation of FAC-011 and FAC-014 requirements. Therefore, we recommend that the revised SOL definition be included in the implementation plan for the revised FAC-011 and FAC-014 such that they all have the same effective date.

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer**

**Document Name**

**Comment**

The text "in accordance with" is subjective, and could be interpreted inconsistently across RE footprints as well as within RE footprints. For example, would the language from FAC-015-1 "equally limiting or more limiting than" be considered "in accordance with?"

Likes 0

Dislikes 0

**Response**

11. FAC-015-1 is predicated on the principle that Facility Ratings, System steady-state voltage limits, and stability criteria used in Planning Assessments for the Near-Term Transmission Planning Horizon should be more conservative/restrictive/limiting than those found in (or established in accordance with) the RC's SOL Methodology, allowing for justified exceptions. Do you agree with this principle? If not, please explain.

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer** No

**Document Name**

**Comment**

Assuming that the question should say "equal to or more conservative" rather than just "more conservative" than the Facility Ratings used by the RC/TOP, we agree with the principle, but find the language too confusing and disagree with the implementation.

The phrase in R1 "If the Planning Coordinator uses less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator's SOL Methodology..." is confusing since Facility Ratings are established by the TO in accordance with FAC-008, not by the RC or TOP in accordance with the SOL Methodology. If the intent is to ensure that, for example, the PC/TP does not plan to 15-minute emergency ratings if the TOP uses only 30-minute emergency ratings in operations, then it should make that more explicit. The requirements seem to imply that there could be more than one set of Facility Ratings for a given Facility (not true) and that Facility Ratings are established in accordance with the RC SOL Methodology (also not true).

In addition, all of the requirements in FAC-015 are related to what limits should be used in planning assessments, therefore the requirements should be included in the TPL standard. Having a separate standard defining the limits that should be used in TPL studies adds unnecessary complication.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer** No

**Document Name**

**Comment**

In general, the Facility Ratings established by the Transmission Owner, system steady-state voltage limits and stability criteria should be the same as the RC for facilities located within the Planning Coordinator area with some minor exceptions. The RC's SOL methodology may be less conservative in some cases, for example contingency selection. The RC will be mainly focusing on single contingencies while the PC will focus on single and multiple contingencies. However, the RC's methodology may be less conservative in terms of transmission service (i.e. considers non-firm use). In that case the RC may identify a stability limit whereas the PC did not.

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer** No

**Document Name**

**Comment**

As stated in the current posted draft of FAC-015-1 R1, it (i.e., Facility Ratings used in its Planning Assessment of the Near-Term Transmission Planning Horizon) should be **equal to** or more conservative/restrictive/limiting.

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer** No

**Document Name**

**Comment**

Assuming that the question should say “equal to or more conservative” rather than just “more conservative” than the Facility Ratings used by the RC/TOP, we agree with the principle, but find the language too confusing and disagree with the implementation.

The phrase in R1 “If the Planning Coordinator uses less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator’s SOL Methodology...” is confusing since Facility Ratings are established by the TO in accordance with FAC-008, not by the RC or TOP in accordance with the SOL Methodology. If the intent is to ensure that, for example, the PC/TP does not plan to 15-minute emergency ratings if the TOP uses only 30-minute emergency ratings in operations, then it should make that more explicit. The requirements seem to imply that there could be more than one set of Facility Ratings for a given Facility (not true) and that Facility Ratings are established in accordance with the RC SOL Methodology (also not true).

In addition, all of the requirements in FAC-015 are related to what limits should be used in planning assessments, therefore the requirements should be included in the TPL standard. Having a separate standard defining the limits that should be used in TPL studies adds unnecessary complication.

Likes 0

Dislikes 0

**Response**

**John Seelke - LS Power Transmission, LLC - 1****Answer** No**Document Name****Comment**

See the response to Q16.

Likes 0

Dislikes 0

**Response****Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF****Answer** No**Document Name****Comment**

Proposed standard language not in alignment with Comment Form question.

The language within Q11 would be correct (with a corresponding “YES” response) if it stated “should be equally or more”, which agrees with the actual language within the proposed language FAC-015-1 Requirements R1, R2 & R3. The language contained within this question goes beyond that principle, and would suggest that being equally conservative/restrictive/limiting might require a justified exception.

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response****Bridget Silvia - Sempra - San Diego Gas and Electric - 3****Answer** No**Document Name****Comment**

Need consistency.

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer** No

**Document Name**

**Comment**

Duke Energy does not agree with the principle that Facility Ratings, System steady-state voltage limits, and stability criteria used in Planning Assessments for the Near-Term Transmission Planning Horizon should be more conservative than those found in the RC's SOL Methodology. With this language, the drafting team is implying that it is not appropriate for Planners to plan and Operators to operate from the same or equal ratings without justification. We believe that it can be appropriate for Planning and Operations to use the same/equal ratings, and should not require justification to do so. We recommend the drafting team consider modifying the existing language to reflect that the use of the same/equal rating can be appropriate and not require justification.

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** No

**Document Name**

**Comment**

Day-to-day operations of the system may require a more conservative/restrictive/limiting Facility Ratings, System steady-state voltage limits, and stability criteria as the system can be operated beyond planning criteria (ex. beyond N-1/-1). Some operating margin is added into facility ratings, system steady state voltage limits, and stability criteria as System Operators are operating the system 24 hours for 365 days in a year which provides the Operators with unique operating challenges – various conditions (outages, generation commitment, contingencies that are beyond planning criteria) – that are beyond what's studied in TPL-001 Planning Assessment. System Operators may have, for example, pre-contingency low/high 'proxy' voltage limits for a particular substation as real time voltage collapse (knee of the curve) calculations are not performed for each operating state. System Operators also have at their disposal Dynamic Feeder Ratings which vary the capability of a feeder; which could be higher or lower than what's assumed in the TPL-001 Planning Assessment.

The definition of System Operating Limit states: "The value (such as MW, Mvar, amperes, frequency or volts) that satisfies the most limiting of the prescribed operating criteria for a specified system configuration to ensure operation within acceptable reliability criteria." FAC-015 would introduce operating criteria for multitude of operating system configurations into TPL-001 Planning Assessment.

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
The question as worded states the limits should be more conservative, which Energy does not agree with, the limit should be equally or more limiting. We believe this was just an oversight in the wording of the question since the proposed standard uses the word “equally”.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
Please refer to the comments submitted by the SPP Standards Review Group.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
<p><b>Comment 1:</b> Facility Ratings should be provided by the Transmission Owner and Generation Owner to both the Planning Coordinator and Reliability Coordinator. Facility Ratings are what they are – from our experience, the trouble comes in with assumptions about ambient conditions.</p> <p>In CHPD’s experience, the greatest challenge between planning and operations is that we utilize dynamic ambient-temperature based ratings. In real-time, there is a very wide band of potential transmission line ratings based on the ambient temperature, just as there are a wide range of ambient temperature conditions throughout the day. Therefore, in real-time operations we use many ratings throughout the day.</p> <p>In long term system planning and operations planning, it is clearly inappropriate to run all the studies through all ratings sets. Our practice is to use what we as a utility have felt is appropriate for the expected ambient conditions, in coordination with our neighbors.</p> <p>Similarly, while it is recognized that there are differences between the planning and operational voltage criteria, CHPD has not experienced great difficulty in operating its system, even with the different planning and operational criteria.</p>	

CHPD feels that there isn't a need to create prescriptive requirements in order to accomplish this reliability objective. It is the Planning Coordinator's responsibility to adequately plan the system for growth, capacity, and integration of service in the Planning Horizon; it is the Reliability Coordinator's responsibility to plan and operate the system in the Operations Horizon. Given these different responsibilities, we feel it is not appropriate for one entity to determine another entity's criteria since each performs a different system function in a different system timeframe.

**Comment 2:** The term 'System Operating Limit (SOL)' from FAC-014-2 has now been replaced with 'Facility Ratings' in FAC-015-1. While System Operating Limits (SOLs) are the result of *studies* assessing the performance of Facility ratings and performance criteria against expected system conditions and events, Facility Ratings are **not** the result of studies and assessments – they 'are what they are'. Furthermore, under FAC-008, the Transmission Owner and Generator Owner is already required (under FAC-008 R6-R8) to make its Facility Ratings available to the Reliability Coordinator and Planning Coordinator. Under FAC-015-1 R4, the Planning Coordinator is now being required to provide Facility Ratings. While this was in the spirit of what was previously in FAC-014-2 with 'SOL' replaced with 'Facility Ratings', this change is now requiring the Planning Coordinator to provide something that is the responsibility of the Transmission Owner under FAC-008 to provide. CHPD recommends removal of this requirement because its objective is carried in FAC-008.

Likes 0

Dislikes 0

### Response

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name** AECI & Member G&Ts

**Answer**

No

**Document Name**

**Comment**

As stated in proposed Reliability Standard FAC-015-1 R1, Facility Ratings, System steady-state voltage limits, and stability criteria used in Planning Assessments for the Near-Term Transmission Planning Horizon should be **equal to or more conservative/restrictive/limiting...**

Likes 0

Dislikes 0

### Response

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name** FMPA

**Answer**

No

**Document Name**

**Comment**

FMPA agrees in principle, but as mentioned above, there should be a feedback loop. More information about how to coordinate the planning horizon events with the operations horizon events would be useful, and a table describing the various time horizons, contingencies, and allowable actions, such as Table 1 of TPL-001-4, may help add clarity.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

No

**Document Name**

**Comment**

ITC agrees with the general concept that more or at least as conservative SOL's should be utilized in the Planning Assessments as those considered in real time operations. The SDT should clarify how exceptions would be justified and who would have the authority to justify them. There will be instances where lower Facility Ratings will be identified in real time as Facility Ratings are continually reviewed by TO's. This will create situations when more limiting SOL's may be used in real time operations that those that were used in the latest or even current Planning Assessments. There will also be projects considered in future Planning models that may increase Facility Ratings or other SOL's. It should be made clear that this would be acceptable.

The standard should only specify the end objective and not the process to achieve that objective. Each system has a defined Planning Criteria that is published and readily available to the RC. This Criteria has defined voltage limits and stability criteria that have been identified that work with the Facility Ratings for that system. By utilizing an RC based methodology, you will be forced to go to either a least common denominator criteria or not be able to take in to account specific issues inherent in a system. Having to justify each exception for every rating change due to a project, rating correction, use of seasonal ratings in operations is not prudent for either the PC or the TP.

ITC does not believe FAC-015-1 is necessary to achieve the required outcome. Simple modifications to TPL-001-4 may allow for the same desired outcome.

Likes 0

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3**

**Answer**

No

**Document Name**

**Comment**

We agree with the concept that system performance criteria used in the Planning Assessments should be more restrictive or at least line up with system performance criteria used in the Operating Horizon. But, system performance criteria used in the Operating Horizon cannot be more restrictive than those used in the Planning Horizon. The proposed standard, as written, allows the RC to establish criteria without consultation with the TP and the PC. In our opinion, this is a recipe for failure.

Furthermore, we see nothing in the NERC Functional Model that would allow the PC and RC to develop or establish system performance criteria as part of their defined roles, or to establish performance criteria that could be more restrictive than the criteria provided by the Transmission Owners and Transmission Planners. Standard TPL-001-4 dictates system performance requirements. PC and RC cannot arbitrarily decide to come up with new,

more restrictive system performance criteria.

We are also concerned that requirements R1 through R3 allow for no input from the Transmission Planners regarding the development of any performance criteria established by the Planning Coordinator. Requirement R4 then requires the PC to simply hand-down its criteria to the Transmission Planner without any input as to whether the criteria are reasonable or whether meeting the criteria is feasible. At a minimum, requirements R1 through R3 need to recognize that the development of any PC based system performance criteria has to be a collaborative effort between the PC and the TPs and the Transmission Owners. Any tightening of performance criteria will likely require capital investment and we need to hear from the Planning Coordinators as to why the planned system needs to meet the new, more stringent reliability requirements.

Requirements R1 through R3 require the Planning Coordinator to provide a technical justification to the Reliability Coordinator for using less limiting ratings, voltage limits, or performance criteria. We can see that some equipment ratings can change from year to year, and perhaps the corrective action plans should also be provided for those parts of the system that have been or are planned to be upgraded. However, we disagree with the approach proposed by the SDT for the voltage limits and stability criteria, and instead believe that the drafting team needs to have the Reliability Coordinator provide a technical basis to the Planning Coordinator and the Transmission Planners regarding why more limiting ratings and performance criteria should be required in planning assessments. As any tightening of ratings and performance criteria will likely require capital investments, we need to hear from the Reliability Coordinators as to why the system as provided/planned needs to meet the new, more stringent reliability requirements.

Likes 0

Dislikes 0

### Response

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer**

No

**Document Name**

**Comment**

The SPP Standards Review Group would like the drafting team to provide some clarity on the short term derates pertaining to the Planning Horizon. Also, we would ask the drafting team to provide clarity on what are justified exceptions or how the term is defined.

Likes 0

Dislikes 0

### Response

**James Grimshaw - CPS Energy - 3**

**Answer**

No

**Document Name**

**Comment**

Planning Assessments for the Near-Term Transmission Planning Horizon utilize base case models built meeting requirements in MOD-032. These base case models incorporate future additions and upgrade projects that may be put in place to resolve existing SOLs. Assessing the continuing need

for Corrective Action Plans, as required by TPL-001, would address the need to study the existing SOLs, however, to properly evaluate other future projects, assumptions must be made that existing Corrective Action Plans will be implemented. This means, for example, that studies performed for year 5 should assume that Corrective Action Plans identified for Year 2 have already been implemented, which means an existing SOL may have already been upgraded when studying Year 5.

Likes 0

Dislikes 0

### Response

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer**

No

**Document Name**

**Comment**

PNMR believes that allowing a justified exception will still result in a gap between planning and operations and considers this standard, as written, as an additional administrative burden on the PA. Instead of allowing for exceptions, PNMR suggests that the RC, TOP, and PA should jointly develop system performance criteria.

PNMR suggests that R1 be revised to provide clarity on what is less conservative/restrictive/limiting. Is it the intention of the SDT that the Planning Coordinator would have to provide a technical justification to the RC for using less limiting Facility ratings based on a Corrective Action Plan? For example, Facility A has a rating of 100 MVA. A previous Planning Assessment identified an overload of Facility A. To mitigate the overload the Corrective Action Plan is to increase the rating of Facility A to 200 MVA. TPL-001-4 R1.1.3 requires the Planning Coordinator to include this planned change to the existing Facility in the System model used for the Planning Assessment. Does this situation result in the Planning Coordinator using a less limiting Facility Rating than established in accordance with the RC's SOL Methodology? PNMR strongly believes that the Planning Coordinators should not have to provide technical justification to their RC for simply following the TPL-001 standard.

Likes 0

Dislikes 0

### Response

**Gladys DeLaO - CPS Energy - 1**

**Answer**

No

**Document Name**

**Comment**

Planning Assessments for the Near-Term Transmission Planning Horizon utilize base case models built meeting requirements in MOD-032. These base case models incorporate future additions and upgrade projects that may be put in place to resolve existing SOLs. Assessing the continuing need for Corrective Action Plans, as required by TPL-001, would address the need to study the existing SOLs, however, to properly evaluate other future projects, assumptions must be made that existing Corrective Action Plans will be implemented. This means, for example, that studies performed for year 5 should assume that Corrective Action Plans identified for Year 2 have already been implemented, which means an existing SOL may have

already been upgraded when studying Year 5.

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer**

No

**Document Name**

**Comment**

The proposed Standard places the onus on the PC to provide the criteria to be used by the Transmission Planner in completing Planning Assessments. In SPP, the SOLs have historically been defined as permanent and temporary flowgate ratings and operating guides. Based on that methodology, it is difficult, if not possible, for planners to identify all situations that potentially may cause an operating guide that would lower a rating; and, as such, the planner may not study each SOL in their Planning Assessment.

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer**

Yes

**Document Name**

**Comment**

[As previously posed in our response to Question 10, would the language from FAC-015-1 “equally limiting or more limiting than” be considered “in accordance with” as provided in FAC-014-3?](#)

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

While we agree with the principle, BPA does not see a need for a new standard. The objective could be better accomplished by including the requirements to existing standards or modifying existing standards.

Planning assessments modeling data including facility ratings are based on MOD-032-1 data requirement. If it is desired to coordinate modeling data with RC SOL methodology, RC SOL methodology should align with the MOD-032-1 requirement instead of drafting a new requirement.

Likes 0

Dislikes 0

**Response****Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer**

Yes

**Document Name**

**Comment**

AZPS agrees with the principal but does not agree that there is a need for R1, R2 and R3 as they provide minimal additional reliability benefits and create an unnecessary additional burden for the Planning Coordinator.

Likes 0

Dislikes 0

**Response****Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

SCE supports this principle and believes that best planning practices include more restrictive or equal limits compared to operational limits to provide our transmission operators with the necessary grid assets or advanced knowledge of system limitations to reliably operate the transmission system.

Likes 0

Dislikes 0

**Response****Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name****Comment**

SRP agrees with the principle, but has a concern with the wording of R1.

-R1 refers to Facility Ratings as being established in accordance with the Reliability Coordinator's SOL Methodology, though Facility Ratings are established by a TO or GO in accordance with their FAC-008-3 Facility Ratings methodology. Perhaps the requirement should read "...the Facility Ratings used to establish SOLs in accordance with the RC's SOL Methodology..."

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

Yes

**Document Name****Comment**

The SDT is definitely on target with its assessment that the system must be planned to at least as conservative limits as are used in the operation of the system in real-time. Because planning analyses cannot cover all operating conditions to do any different would be to plan a system that could not be operated within acceptable limits.

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer**

Yes

**Document Name****Comment**

Peak agrees with this principle.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Supporting NPCC comments	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Richard Vine - California ISO - 2</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
<ul style="list-style-type: none"> <li>• We agree with the principle, but we disagree with the implementation.</li> <li>• We agree with the following comment from Seattle City Light: <ul style="list-style-type: none"> <li>○ <i>The phrase in R1 “If the Planning Coordinator uses less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator’s SOL Methodology...” is confusing since Facility Ratings are established by the TO in accordance with FAC-008, not by the RC or TOP in accordance with the SOL Methodology. If the intent is to ensure that, for example, the PC/TP does not plan to 15-minute emergency ratings if the TOP uses only 30-minute emergency ratings in operations, then it should make that more explicit. The requirements seem to imply that there could be more than one set of Facility Ratings for a given Facility (not true) and that Facility Ratings are established in accordance with the RC SOL Methodology (also not true).</i></li> <li>○ Proposed alternative language for R1: In planning assessments and operations, facility continuous ratings shall be used for the pre-contingency state and facility ____ hour/minute ratings shall be used for the post-contingency state.</li> <li>○ As stated in the purpose section of FAC 008 a Facility Rating is essential for the determination of System Operating Limits. We disagree with the notion that Facility Ratings are SOLs. While Facility ratings are based on characteristics of the Facility in accordance with FAC 008, SOLs are system limits developed using steady state and stability simulations based on a defined set of performance criteria such as those defined in the currently effective FAC-010 and FAC-011 standards.</li> <li>○ The required coordination between planning and operations can better be addressed by the regional reliability organization like WECC which has an open and established process for developing regional criteria. Reliability coordinators’ SOL methodologies are developed without input from planning coordinators.</li> <li>○ Given the objective is to ensure coordination between planning and operations, the RC must be assigned a responsibility in the standard. For example, if the standard entails comparing planning models with operations models, then the RC must have the responsibility to provide the operations models and the obligation to timely respond to questions the PC may have in the course of the comparison in order to resolve any discrepancy in facility ratings, etc.</li> <li>○ Requirement R1 of TPL 001-4 requires the planning coordinator to use modelling data provided in accordance with MOD 10 and MOD 12 (which are now replaced with MOD 32). As such using modelling information such as facility ratings obtained from the reliability</li> </ul> </li> </ul>	

coordinator's SOL methodology can be inconsistent with TPL 001-4.

- The ratings and limits used in planning do not have to be more conservative than those used in operations. Equally conservative ratings and limits can be sufficient. For example, a 0.9 p.u. low voltage limit can be applicable in both planning and operations.
- CAISO PC proposes Requirements R1 to R5 be replaced with something like:
  - Planning Coordinators(PCs), Transmission Planners (TPs), Reliability Coordinators (RCs) and Transmission Operators (TOPs) within a Regional Reliability Organization (RRO) area shall collaborate in developing and implementing consistent applicable Facility Ratings duration criteria, System steady-state voltage limits, and stability criteria for use in planning assessments and operations.
- 

Likes 0

Dislikes 0

### Response

#### Gregory Campoli - New York Independent System Operator - 2

Answer

Yes

Document Name

#### Comment

However it is not clear on how to handle situations when the planning assessment was performed with the equal or more conservative limit and actual conditions change resulting in more restrictive limits in the Operating Horizon.

Note: ERCOT does not support this response

Likes 0

Dislikes 0

### Response

#### Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2

Answer

Yes

Document Name

#### Comment

ERCOT reads the standard to say that the values used in Planning Assessments could be *equal or* more limiting than those used in the RC's SOL Methodology, and not that they must be more limiting, as suggested by the question.

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Wendy Center - U.S. Bureau of Reclamation - 5****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name** RSC no Dominion NextERA Con-Ed

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

<b>Michael Jones - National Grid USA - 1</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Lauren Price - American Transmission Company, LLC - 1 - MRO,RF</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	

12. Do you agree that coordination of Facility Ratings, System steady state voltage limits, and stability performance criteria as required in Requirements R1-R3 should be limited to Planning Assessments of the Near-Term Transmission Planning Horizon? If yes, please provide supporting rationale; if no, please explain and provide alternative language.

**Michael Jones - National Grid USA - 1**

**Answer** No

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer** No

**Document Name**

**Comment**

Coordination for SOLs should be incorporated into base planning models required by MOD-032, the same as Facility Ratings are incorporated into these base models (as required by MOD-032). TPL-001 requirements would then stay the same, as these studies should be based upon models built as required by MOD-032. FAC-015 Requirement R1 may be more appropriately incorporated into the FAC-008 facility rating as part of the MLSE calculation for individual facilities. For groups of facilities, identification of a limiting flow-gate may be more appropriate. If this is not feasible, then the requirement should be incorporated into the modeling requirements of MOD-032.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer** No

**Document Name**

**Comment**

PNMR believes that this language continues to create a gap between planning and operations. PNMR proposes the removal of the phrase “of the Near-Term Transmission Planning Horizon”. Long-Term planning should be performed to the same or more stringent Facility Ratings, System steady

state voltage limits, and stability performance criteria.

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer**

No

**Document Name**

**Comment**

Coordination for SOLs should be incorporated into base planning models required by MOD-032, the same as Facility Ratings are incorporated into these base models (as required by MOD-032). TPL-001 requirements would then stay the same, as these studies should be based upon models built as required by MOD-032. FAC-015 Requirement R1 may be more appropriately incorporated into the FAC-008 facility rating as part of the MLSE calculation for individual facilities. For groups of facilities, identification of a limiting flow-gate may be more appropriate. If this is not feasible, then the requirement should be incorporated into the modeling requirements of MOD-032.

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer**

No

**Document Name**

**Comment**

If premise is to ensure consistency with TPL-001-4, then language within Standard should reference, "...annual Planning Assessment.." versus just the near-term horizon

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed**

**Answer**

No

**Document Name**

**Comment**

We expect the FR and limits used in the TPL assessments to be very similar if not identical in most cases between the near-term and long-term horizons. Since most major transmission projects are identified in the long-term horizon and take several years to be completed, it would make no sense for the PC/TP to use less limiting criteria for the long-term horizon than the near-term horizon or the RC's SOL Methodology. We suggest removing the reference to Near-term horizon and simply referring to the Planning Assessment as in R4.

Likes 0

Dislikes 0

### Response

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer**

No

**Document Name**

**Comment**

The SPP Standards Review Group has a concern pertaining to the performance of meeting Requirements R1 and R2. They should be limited to the near term BES representation of year one and two in the near term planning horizon power flow cases set. The BES representations will differ between the Operations and Planning power flow cases due to the proposed project to meet Planning Assessment needs for the year 5 through 10 models.

Likes 0

Dislikes 0

### Response

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

No

**Document Name**

**Comment**

*The same concepts that apply to the Near-Term Transmission Planning Horizon should apply to the Long-Term Planning Horizon. ITC agrees with the general concept that more or at least as conservative SOL's should be utilized in the Planning Assessments as those considered in real time operations. The SDT should clarify how exceptions would be justified and who would have the authority to justify them. There will be instances where lower Facility Ratings will be identified in real time as Facility Ratings are continually reviewed by TO's. This will create situations when more limiting SOL's may be used in real time operations that those that were used in the latest or even current Planning Assessments. There will also be projects considered in future Planning models that may increase Facility Ratings or other SOL's. It should be made clear that this would be acceptable.*

*Per FAC-008-3, Facility Ratings are calculated by the TO and communicated to the TP and TOP (typically all within the same organization) and to the PC and RC. These ratings are used throughout both the Near-Term and Long-Term Planning Assessments unless a planned project causes them to change or a project that is under construction goes in service. Coordination occurs today and should be allowed to continue without strict dictates on exactly how each organization will perform their work. The standard should only specify the end objective and not the process to achieve that objective.*

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPPA**

**Answer**

No

**Document Name**

**Comment**

We question what the value of R1-R3 is and if the requirements are even needed. R1-R3 are really dealing with TPL-001-4 and there shouldn't be three additional requirements in FAC-015-1 to deal with the uncommon occurrence of a PC using less limiting Facility Ratings, System steady-state voltage limits, or stability performance criteria. It certainly shouldn't require a technical justification, it should only require coordination

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer**

No

**Document Name**

**Comment**

The TPL-001-4 study requires MOD data to be used in TPL-001-4 R1. This includes the rating of transformers and transmission lines. Voltage limits (including the stability performance of the voltage) is addressed in TPL-001-4 R6 and are the required criteria for the Planning Assessment. These requirements are applicable to both the Near-Term Transmission Planning Horizon and the Long-Term Planning Horizon. Specifying the time horizon in FAC-015-1 should not be done because it does not modify the time frame requirement found in TPL-001-4 for when these thermal and voltage limits should be used. CHPD feels this language should be removed from FAC-015-1 R1-R3.

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer**

No

**Document Name**

**Comment**

Please refer to the comments submitted by the SPP Standards Review Group.

Likes 0

Dislikes 0

### Response

#### Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1

Answer

No

Document Name

Comment

NERC TPL-001 Planning Assessment should have Facility Ratings, System steady state voltage limits, and stability performance criteria established for both Near-Term and Long-Term Transmission Planning Horizon, however these should be defined separately from RC's SOL Methodology.

Likes 0

Dislikes 0

### Response

#### Bridget Silvia - Sempra - San Diego Gas and Electric - 3

Answer

No

Document Name

Comment

Desire consistency.

Likes 0

Dislikes 0

### Response

#### Scott Downey - Peak Reliability - 1

Answer

No

Document Name

Comment

Peak believes that requirements R1 through R3 should also apply to other NERC required assessments such as the Transfer Capability assessments required by FAC-013-2. It is important for reliability that these Transfer Capability assessments abide by the same principles as the Planning

Assessments for the Near-Term Transmission Planning Horizon. Otherwise the Transfer Capability assessments could use a different set of Facility Ratings, System Voltage Limits, and stability criteria than those established in accordance with the RC's SOL Methodology, which propagates the problems that are being addressed by FAC-015-1 Requirements R1 through R3.

Likes 0

Dislikes 0

### Response

**John Seelke - LS Power Transmission, LLC - 1**

**Answer**

No

**Document Name**

**Comment**

See the response to Q16.

Likes 0

Dislikes 0

### Response

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

No

**Document Name**

**Comment**

The NSRF believes there is insufficient technical reason to exclude the Long-Term Transmission Planning Horizon from Requirements R1-R3. The use of different Facility Ratings, System steady state voltage limits, and stability performance criteria between the Near-Term and Long-Term Transmission Planning Horizons has the potential to be problematic. To ensure consistency with Reliability Standard TPL-001-4, which includes both the Near-Term and Long-Term Planning Horizons in the Planning Assessment, recommend the following change to R1-R3:

Each Planning Coordinator... used in its annual Planning Assessment are equally limiting...

Likes 0

Dislikes 0

### Response

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer**

No

**Document Name**

**Comment**

We do not see any reason why the method used to establish Ratings/Limits would be different in the near-term and longer-term horizons. The time horizon necessary to fund, plan and construct facilities is much longer than 1 to 2 years. Unacceptable system performance needs to be identified five to ten years in the future to allow for building facilities to solve these issues. As for alternative language, we would just strike the words “of the Near -Term Transmission Planning Horizon” from the requirements.

Likes 0

Dislikes 0

**Response****Keyleigh Wilkerson - Lincoln Electric System - 5****Answer**

No

**Document Name****Comment**

LES believes there is insufficient technical reason to exclude the Long-Term Transmission Planning Horizon from Requirements R1-R3. The use of different Facility Ratings, System steady state voltage limits, and stability performance criteria between the Near-Term and Long-Term Transmission Planning Horizons has the potential to be problematic. To ensure consistency with Reliability Standard TPL-001-4, which includes both the Near-Term and Long-Term Planning Horizons in the Planning Assessment, LES recommends the following change to R1-R3:

“Each Planning Coordinator... used in its **annual** Planning Assessment are equally limiting...”.

Likes 0

Dislikes 0

**Response****Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body****Answer**

No

**Document Name****Comment**

We don't see any reason why the method used to establish Ratings/Limits would be different in the near-term and longer-term horizons. The time horizon necessary to fund, plan and construct facilities is much longer than 1 to 2 years. Unacceptable system performance needs to be identified five to ten years in the future to allow for building facilities to solve these issues. As for alternative language, we would just strike the words “of the Near -Term Transmission Planning Horizon” from the requirements.

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer**

No

**Document Name**

**Comment**

We are confused by the question as posed. The proposed revisions provide a planning horizon of Long-term Planning for R1 through R3.

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name Eversource Group**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer**

Yes

**Document Name**

**Comment**

We think that It is unnecessary and less worthwhile to include the Long-Term Planning Horizon (6 - 10 years in the future) because the future system assumptions (load, generation, transfers, etc.) are more uncertain and speculative than the Near-Term Planning Horizon. So, the results would be less useful and subject to change than the Near-Term Planning Horizon results.

Likes 0

Dislikes 0

<b>Response</b>	
<b>Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
We agreed with the SDT that Planning Assessments in scope for these requirements should be limited to the Near-Term Transmission Planning Horizon. PCs are already required to share their results with their RCs, per NERC Reliability Standards IRO-017-1. Sharing similar results from Planning Assessments that are analyzed over a longer time period may not readily benefit the RC looking to develop Operating Plans that alleviate SOL Exceedances.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Leonard Kula - Independent Electricity System Operator - 2</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
We concur with that statement as this is the closest Planning time horizon to that of Operations.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>David Jendras - Ameren - Ameren Services - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
With the exception of planned facility upgrades, we are unaware of why facility ratings, steady-state voltage limits, and stability performance criteria would be different in the Long-Term vs. Near-Term Planning Horizons and would need to be coordinated with the Reliability Coordinator. Therefore, for the Eastern Interconnection, limiting the coordination from the Near-Term Planning Horizon with the Operating Horizon to a discussion of changed facility ratings should be adequate to maintain reliability.	
Likes	0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer**

Yes

**Document Name**

**Comment**

Entergy agrees with the rationale that the time period of 1 to 5 years the assumptions tend to be more certain.

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer**

Yes

**Document Name**

**Comment**

Duke Energy agrees that the Planning Assessments should be limited those for the Near-Term Transmission Planning Horizon, as it is very difficult to make an assessment on stability in years 6-10. We agree that this should only apply to the Near-Term Planning Horizon.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name** Southern Company

**Answer** Yes

**Document Name**

**Comment**

Once these facilities move into the Near-Term horizon, 5 years provides sufficient time to identify thermal constraints in the same manner as they would be seen operationally and develop appropriate Corrective Actions. The Near Term horizon is more than enough time to identify constraints and prepare any needed operational strategies for scenarios that may be candidates to be declared an IROL by the RC.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer** Yes

**Document Name**

**Comment**

Limiting to the Near-Term assessment is fine. However, the Manitoba Hydro Planning Coordinator does not typically change the limits/criteria/ratings between the Near-Term and Long Term horizons. The exception would be Facility Ratings where a modification occurred (Corrective Action Plan installed) or possibly a facility rating methodology changed.

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

The Facility Ratings, voltage limits, and stability criteria (SOLs) should be limited to Near-Term Transmission Planning Horizon. The system conditions and uncertainty beyond Near-Term Transmission Planning Horizon are better suited for large capital projects which require extensive licensing. Unnecessary engineering and licensing may occur if more restrictive SOLs are required for Long Term Transmission Planning.

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer**

Yes

**Document Name**

**Comment**

AZPS agrees that it should be limited to Planning Assessments of the Near-Term Transmission Planning Horizon and further recommends that it should be limited to only studies for years 1 to 2. The Near-Term transmission planning horizon covers years 1 to 5 and is much longer than the operating horizon. Requiring SOL methodology limitations to be used for years 1 – 5 of the Near-Term Planning Horizon could be problematic and is unnecessary.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

While we agree with the principle since the near term planning horizon is more aligned with operations horizon, BPA does not see a need for a new standard. The objective could be better accomplished by including the requirements in existing standards or modifying existing standards. R1 is covered in MOD-032-1. R2 and R3 are already addressed in TPL-001-04.

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name** AECI & Member G&Ts

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

We disagree with the implementation of FAC 15-1. The Facility Ratings, System steady state voltage limits, and stability performance criteria used in the near term are not different from those used in the long term.

Likes 0

Dislikes 0

**Response**

**13. In Requirements R1 – R3, the SDT is proposing to allow a PC to provide a technical justification to its RC for using less limiting Facility Ratings, System steady-state voltage limits, and stability performance criteria than those specified in its RC’s SOL Methodology. Do you agree that this provides adequate flexibility (in the rare circumstances when less limiting Facility Ratings, System steady-state voltage limits, and stability performance criteria must be utilized; e.g., up-rating a line in a future project) without compromising reliability? If yes, please provide supporting rationale; if no, please explain and provide alternative language.**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer** No

**Document Name**

**Comment**

: It makes sense to require PC/TPs to use the same “type” of Facility Ratings and Voltage Limits as the RC/TOP (i.e. if the TOP is operating to 20-minute emergency ratings, the TP/PC shouldn’t be planning to 60-minute emergency ratings). If that is the intent, then this requirement should be included in the TPL-001 standard rather than in this separate FAC-015 standard. The language I would put in the TPL standard would look something like: “Each Transmission Planner and Planning Coordinator shall use the same or a more conservative category of Facility Rating (i.e. using the same emergency rating duration, or using only normal ratings) as used by the TOP/RC in operations.”

The language of the proposed requirements implies that the RC will be the arbiter of which planned projects can be included in planning cases, which does not make sense. If the intent is make sure the RC is aware of these planned projects, the language should be changed (perhaps in a separate requirement) to something like: “the PC/TP shall inform its associated RC of any planned projects that result in changes to Facility Ratings, System Voltage Limits or Stability Limits used in the planning horizon.” If the drafting team sees a need to set the terms under which a project can be included in a TPL planning case, that should be included in the TPL-001 standard, not decided on a case-by-case basis by the RC.

In the case of Stability Criteria, TPL-001-4 and WECC-CRT-3.1 provide pretty explicit criteria for planning assessments. If these are not consistent with the RC requirements, that should be addressed within those standards. The TP/PC should not need to comply with two different sets of stability criteria.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer** No

**Document Name**

**Comment**

R1: The Facility Ratings are coordinated through the MOD-032-1 model development process. Modeling differences from year to year are documented but not between each series of models. The RC is regularly updating Facility Ratings to perform operational and real time studies. The Planning Models are made annually with assumptions made on in-service dates. A particular RC model could easily be out-of-sync with a particular PC model on certain pieces of equipment, however there should be no reliability gap as a result. If the Facility Ratings used by the RC are different from the Year 1 planning model, perhaps the RC should provide a technical justification to the PC instead? This seems to be a lot of work for minimal if any reliability gain.

R2: The PC has documented steady state voltage criteria as required by TPL-001-4 R5. The Transmission Operator fundamentally sets the steady state voltage limits on each BES bus as per NERC FAC-014-3 R2 and NERC FAC-011-4 R3.1. It makes more sense for the PC to coordinate with the

Transmission Operator(s) within the PC area to ensure that limits/criteria are coordinated and exceptions noted. This would be an easy task that it is already performed in Manitoba. The PC criteria is documented in the Transmission System Interconnection Requirements document (created to be compliant with FAC-001) and exceptions developed by the Transmission Operator are noted in a referenced Normal Operating Procedure.

R3: The PC has documented steady stability criteria as required by TPL-001-4 R4 and R5. The The Transmission Operator sets the stability criteria as per NERC FAC-014-3 R2 and NERC FAC-011-4 R4.1. It makes more sense for the PC to coordinate with the Transmission Operator(s) within the PC area to ensure that limits/criteria are coordinated and exceptions noted. This would be an easy task that it is already performed in Manitoba. The PC criteria is documented in the Transmission System Interconnection Requirements document (created to be compliant with FAC-001).

Manitoba Recommends removing R1 and having the coordination in R2 and R3 occur between the PC and relevant Transmission Operator(s) that are responsible for the PC area if needed. Alternatively, the criteria developed by the PC under TPL-001 could be shared with the Transmission Operator.

Likes 0

Dislikes 0

### Response

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name** Southern Company

**Answer**

No

**Document Name**

**Comment**

Suggest adding the phrase “at the same assumed ambient temperature(s)” after the term “Near-Term Transmission Horizon” in the first sentence of R1. The purpose is to make clear that the use of dynamic ratings based on ambient conditions in Operations for thermal ratings can be utilized and that the correlation of the Planning Coordinators Facility Ratings and the Facility Ratings associated with the Reliability Coordinator can be at a discrete small set of ambient temperatures.

Likes 0

Dislikes 0

### Response

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer**

No

**Document Name**

**Comment**

It makes sense to require PC/TPs to use the same “type” of Facility Ratings and Voltage Limits as the RC/TOP (i.e. if the TOP is operating to 20-minute emergency ratings, the TP/PC shouldn’t be planning to 60-minute emergency ratings). If that is the intent, then this requirement should be included in the TPL-001 standard rather than in this separate FAC-015 standard. The language I would put in the TPL standard would look something like: “Each Transmission Planner and Planning Coordinator shall use the same or a more conservative category of Facility Rating (i.e. using the same emergency rating duration, or using only normal ratings) as used by the TOP/RC in operations.”

The language of the proposed requirements implies that the RC will be the arbiter of which planned projects can be included in planning cases, which does not make sense. If the intent is make sure the RC is aware of these planned projects, the language should be changed (perhaps in a separate requirement) to something like: "the PC/TP shall inform its associated RC of any planned projects that result in changes to Facility Ratings, System Voltage Limits or Stability Limits used in the planning horizon." If the drafting team sees a need to set the terms under which a project can be included in a TPL planning case, that should be included in the TPL-001 standard, not decided on a case-by-case basis by the RC.

In the case of Stability Criteria, TPL-001-4 and WECC-CRT-3.1 provide pretty explicit criteria for planning assessments. If these are not consistent with the RC requirements, that should be addressed within those standards. The TP/PC should not need to comply with two different sets of stability criteria.

Likes 0

Dislikes 0

### Response

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

No

**Document Name**

**Comment**

Although the NSRF agrees there may be cases where this flexibility is necessary, there is no criterion to determine what acceptable technical justification is. Nor does the standard identify who it is that determines that the technical justification is acceptable. This leaves ambiguity in the proposed requirements. The requirements need to clearly spell out which entity is responsible for determining when it is appropriate for less limiting criteria to be used in planning evaluations. As it is the real-time operators who will have to operate the system as designed, we believe the RC should have the final say as to whether the justification is appropriate or not.

Likes 0

Dislikes 0

### Response

**John Seelke - LS Power Transmission, LLC - 1**

**Answer**

No

**Document Name**

**Comment**

See the response to Q16.

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer** No

**Document Name**

**Comment**

For consistency.

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** No

**Document Name**

**Comment**

R1-R3 should provide Transmission Planner and not only Planning Coordinator the opportunity to provide a technical justification for 'different' Facility Ratings, System steady state voltage limits, and stability performance criteria to its Reliability Coordinator.

The alternative language should have an addition of "Transmission Planner or" as follows:

"[...]If the **Transmission Planner or** Planning Coordinator uses less limiting System steady state voltage limits established in accordance with its Reliability Coordinator's SOL

Methodology, the Planning Coordinator shall provide a technical justification to its Reliability Coordinator."

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer** No

**Document Name**

**Comment**

Please refer to the comments submitted by the SPP Standards Review Group.

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name** Chelan PUD

**Answer**

No

**Document Name**

**Comment**

While CHPD appreciates the nod to flexibility by allowing the Planning Coordinator to use different criteria, with justification to the Reliability Coordinator, CHPD disagrees with the statement that this will be a rare circumstance. As stated above, CHPD feels a better tool would be for the Reliability Coordinator and Planning Coordinator to exchange methodologies and ratings assumptions / practices, and to have the ability to comment to each other with technical concerns. Alternative language for R1-R3 could be something to the effect:

R1. The Reliability Coordinator shall provide its methodology, performance criteria, and ratings assumptions to each Planning Coordinator in the Reliability Coordinator's area

- 1. Each Calendar Year
- 2. 90 days prior to a change

R2. The Planning Coordinator shall provide its methodology, performance criteria, and ratings assumptions to each Reliability Coordinator in the Planning Coordinator's area

- 1. Each Calendar Year
- 2. 90 days prior to a change

R3. If the (Planning Coordinator or Reliability Coordinator) receive technical comments in writing from the (Reliability Coordinator or Planning Coordinator), the (Planning Coordinator or Reliability Coordinator) shall respond to those comments within 30 days.

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name** FMPPA

**Answer**

No

**Document Name**

**Comment**

Please see our comments for question number 6 regarding feedback loops.

Likes 0

Dislikes 0

### Response

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer**

No

**Document Name**

**Comment**

*This would place too much burden on both the PC and TP. Per FAC-008-3, Facility Ratings are calculated by the TO and communicated to the TP and TOP (typically all within the same organization) and to the PC and RC. These same ratings are used throughout both the Near-Term and Long-Term Planning Assessments unless a planned project causes them to change or a project that is under construction goes in service. Coordination occurs today and should be allowed to continue without strict dictates on exactly how each organization will perform their work. The standard should only specify the end objective and not the process to achieve that objective.*

Likes 0

Dislikes 0

### Response

**David Jendras - Ameren - Ameren Services - 3**

**Answer**

No

**Document Name**

**Comment**

With the exception of planned facility upgrades, we are unaware of why any technical justification would be required by the PC to the RC. Conversely to what is stated in the question, we do not believe that facility upgrades are rare circumstances and compromise reliability.

Furthermore, we see nothing in the NERC Functional Model that would allow the PC and RC to develop or establish system performance criteria as part of their defined roles, or to establish performance criteria that could be more restrictive than the criteria provided by the Transmission Owners and Transmission Planners. Standard TPL-001-4 dictates system performance requirements. PC and RC cannot arbitrarily decide to come up with new, more restrictive system performance criteria.

We are also concerned that requirements R1 through R3 allow for no input from the Transmission Planners regarding the development of any performance criteria established by the Planning Coordinator. Requirement R4 then requires the PC to simply hand-down its criteria to the Transmission Planner without any input as to whether the criteria are reasonable or whether meeting the criteria is feasible. At a minimum,

requirements R1 through R3 need to recognize that the development of any PC based system performance criteria has to be a collaborative effort between the PC and the TPs and the Transmission Owners. Any tightening of performance criteria will likely require capital investment and we need to hear from the Planning Coordinators as to why the planned system needs to meet the new, more stringent reliability requirements.

Requirements R1 through R3 require the Planning Coordinator to provide a technical justification to the Reliability Coordinator for using less limiting ratings, voltage limits, or performance criteria. We can see that some equipment ratings can change from year to year, and perhaps the corrective action plans should also be provided for those parts of the system that have been or are planned to be upgraded. However, we disagree with the approach proposed by the SDT for the voltage limits and stability criteria, and instead believe that the drafting team needs to have the Reliability Coordinator provide a technical basis to the Planning Coordinator and the Transmission Planners regarding why more limiting ratings and performance criteria should be required in planning assessments. As any tightening of ratings and performance criteria will likely require capital investments, we need to hear from the Reliability Coordinators as to why the system as provided/planned needs to meet the new, more stringent reliability requirements.

Likes 0

Dislikes 0

### Response

**Richard Vine - California ISO - 2**

**Answer**

No

**Document Name**

### Comment

- For the reasons noted in the response to Question 11, the ISO does not agree with the implementation of FAC-015. However, if it is implemented, we support allowing a PC to provide a technical justification to its RC for using less limiting Facility Ratings, System steady-state voltage limits, and stability performance criteria than those specified in its RC's SOL Methodology.
- We request the term "Facility Ratings" in the requirement and throughout the standard be replaced with something like "applicable Facility Ratings duration criteria".
- "In the case of Stability Criteria, TPL-001-4 and TPL-001-WECC-CRT-3.1 provide pretty explicit criteria for planning assessments. If these are not consistent with the RC requirements, that should be addressed within those standards. The TP/PC should not need to comply with two different sets of stability criteria."

Likes 0

Dislikes 0

### Response

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer**

No

**Document Name**

### Comment

There needs to be language defining who decides that the technical justification is acceptable.

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer**

No

**Document Name**

**Comment**

We agree with the statement in principal but the Facility Rating provided by the equipment owner that is applicable for the year of the study (which may be less restrictive) should still be the one that is used. The language in the requirement should address this.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer**

No

**Document Name**

**Comment**

PNMR believes that allowing a justified exception will still result in a gap between planning and operations and considers this standard, as written, as an additional administrative burden on the PA. Instead of allowing for exceptions, PNMR suggests that the RC, TOP, and PA should jointly develop system performance criteria.

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer**

No

**Document Name**

**Comment**

In most situations, proposed R1-R3 provides adequate flexibility without compromising reliability; however, it raises a question:

If the RC needs to lower an SOL below the Facility Rating in real-time due to clearance issues, how does the PC monitor SOLs to determine if an SOL has gone lower than the Facility Rating, necessitating technical justification?

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer**

No

**Document Name**

**Comment**

In the event planned transmission system upgrades exist, the PC would often need to use less limiting Facility Ratings for those facilities. The SDT should consider including a firm exclusion of transmission system upgrades for FAC-015-1 R1 to avoid unnecessary documentation for a frequent and commonly understood justification.

ERCOT suggests the following revision to achieve this purpose:

Each Planning Coordinator, when developing its steady state ~~to ensure that for all facilities~~ **other than those with planned transmission upgrades**, Facility Ratings used in its Planning Assessment of the Near Horizon are equally limiting or more limiting than those established in accordance with its Reliability Coordinator's SOL Methodology.

\*\*\*\*Please refer to the attached comment form for redlined language.

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer**

No

**Document Name**

**Comment**

PCs are already required to provide the results of their Planning Assessments to impacted RCs, per NERC Reliability Standards IRO-017-1. The inclusion of technical justifications for using less limiting SOLs would then be included in addition to these results. We caution the SDT that the target audience of a RC's SOL Methodology are TOPs, not PCs. TOPs use this methodology to determine applicable owner System Voltage Limits, and stability limits that can be used in operations. We feel this creates a process gap that should be addressed by requiring the RC to include, in its SOL Methodology, a method for PCs to determine applicable owner Planning Assessments.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

While we agree with the principle, BPA does not see a need for a new standard. The objective could be better accomplished by including the requirements to existing standards or modifying existing standards. MOD-032-1 and TPL-001-4 should be modified to address.

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

The proposed process for exceptions is adequate because it ensures visibility of these exceptions to the Reliability Coordinator. The transmission system is nuanced and providing this flexibility is important granted that the affected parties are involved (such as the RC).

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Reclamation supports the use of less limiting Facility Ratings, System steady-state voltage limits, and stability performance criteria than those specified in the RC's SOL Methodology when appropriate.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Scott Downey - Peak Reliability - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
There may be circumstances where there is a technically justifiable reason for using less limiting Facility Ratings, System steady-state voltage limits, and stability criteria than those established in accordance with (or described in) the RC's SOL Methodology. However, if the RC does not agree with the technical justification provided by the PC, the RC should have the authority to refute the justification which would then require that the stipulations in the RC's SOL Methodology would prevail.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Shivaz Chopra - New York Power Authority - 1,3,5,6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Supporting NPCC comments	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy</b>	

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Duke Energy agrees that the proposal provides adequate flexibility, however, we request further clarification from the drafting team on how question 11 above, works in concert with question 13.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Julie Hall - Entergy - 6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Entergy agrees with allowing the PC to provide a technical justification. Not all situations can be covered and there may be extenuating circumstances where it is necessary to use less limiting ratings.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl &amp; Member G&amp;Ts</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
AECl agrees that this approach provides adequate flexibility. A Registered Entity may encounter circumstances where there is a technically justifiable reason for using less limiting Facility Ratings, System steady-state voltage limits, and stability criteria than those established in the Reliability Coordinator's SOL Methodology.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed</b>	

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
A sound technical justification may indeed be appropriate in certain cases and this flexibility is well captured by the standard.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Gregory Campoli - New York Independent System Operator - 2</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
However, the SDT should include the Transmission Planner as an entity that can also provide lower facility ratings and limits as they are required under TPL to establish those limits for facilities in their purview.	
Note: ERCOT does not support this response.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>James Grimshaw - CPS Energy - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Reference MOD-032-1, attachment 1, "items marked with asterisk indicate data that vary with system operating state or conditions." In this case, the new "system operating state" is the particular future year under study which should incorporate all anticipated topology and rating changes for that year. These topology and rating changes may have been added to upgrade an existing SOL.	
Likes 0	
Dislikes 0	
<b>Response</b>	

**Gladys DeLaO - CPS Energy - 1****Answer** Yes**Document Name****Comment**

Reference MOD-032-1, attachment 1, "items marked with asterisk indicate data that vary with system operating state or conditions." In this case, the new "system operating state" is the particular future year under study which should incorporate all anticipated topology and rating changes for that year. These topology and rating changes may have been added to upgrade an existing SOL.

Likes 0

Dislikes 0

**Response****Michael Jones - National Grid USA - 1****Answer** Yes**Document Name****Comment**

National Grid supports the NPCC RSC Group comments.

Likes 0

Dislikes 0

**Response****Lauren Price - American Transmission Company, LLC - 1 - MRO,RF****Answer** Yes**Document Name****Comment**

We think that although the circumstances for more limiting SOLs may be rare, it is wise to include provisions for addressing them in case they would occur.

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

14. Do you agree that the information identified in Requirement R6 is necessary for each impacted RC and TOP to properly evaluate instability, Cascading, or uncontrolled separation identified in planning assessments for use in establishing stability limits and IROLs in the operations horizon? If not, please explain and provide alternative language.

Lauren Price - American Transmission Company, LLC - 1 - MRO,RF

Answer No

Document Name

Comment

We disagree that Near-Term Transmission Planning Horizon and Transfer Capability Assessments will necessarily be useful for establishing stability limits and IROLs in the operating horizon because the basis for planning horizon assessments [transmission planning system models (e.g. firm loads, firm transfers, and generation dispatch) and applicable contingencies] are quite different from the basis for operating horizon assessments.

It also seems that the burden on the PCs to prepare the required information packages for potentially impacted RCs and TOPs will not be commensurate with the limited benefit that it may provide to RCs and TOPS. It would be more reasonable, clear cut, and pose less compliance risk to require PCs to simply provide their Near-Term Transmission Planning Horizon and Transfer Capability Assessments to the RCs and TOPS within and adjacent to their area. The RCs and TOPs would then decide from themselves whether any information in these documents may be interest or impact them.

Likes 0

Dislikes 0

Response

Leonard Kula - Independent Electricity System Operator - 2

Answer No

Document Name

Comment

FAC-15-1 Requirement R6 is a step in the right direction. However, FAC-15-1 should address that Planning Assessments and Operations studies for derivation of SOLs and IROLs are not of the same scope in terms of number of facilities considered out of service. Therefore simply enforcing that the performance criterion used in the Planning Assessment be more restrictive than that used in Operations does not materially improve the operability of planned facilities. The scope of the studies in the Operations Horizon should be increased to bridge this gap through Requirements in FAC-11-4 and FAC-14-3.

Likes 0

Dislikes 0

Response

Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin

Answer No

**Document Name**

**Comment**

This would place too much additional compliance burden on the PC. If the RCs and TOPs believe that this information is important for them to obtain, a SAR should be opened to add this to the TPL-001 standard or at least the IRO-017 standard verses creating another new standard that requires the PC to provide additional information from the TPL standard to the RC and the TOP.

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer**

No

**Document Name**

**Comment**

Because UFLS and UVLS relays are permitted to trip load beyond P2.1 contingencies in the Planning Assessment and will trip as needed to help stabilize the simulation, it is not possible for FAC-015-1 R6.4 to be achieved because the simulation will not reach the point of instability, Cascading, or uncontrolled separation with the relay action present in the simulation. In order to make this determination (whether there would have been instability, Cascading, or uncontrolled separation if they had not tripped), an entity would have to run a second set of simulations blocking all UFLS and UVLS relays from tripping. The system performance could then be assessed and the information in FAC-015-1 R6.4 related to UFLS and UVLS relays could then be provided. As these additional simulations would represent additional burden to the work performed under TPL-001-4, CHPD feels that the proposed FAC-015-1 R6.4 should have the items related to UVLS and UFLS removed from the criteria. If this is a reliability objective, it should be addressed under the TPL-001-4 standard.

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer**

No

**Document Name**

**Comment**

Need more specific with property data especially "switching data".

Likes 0

Dislikes 0

**Response**

**John Seelke - LS Power Transmission, LLC - 1**

**Answer** No

**Document Name**

**Comment**

See the response to Q16.

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer** No

**Document Name**

**Comment**

The use of the term “instability, Cascading, or uncontrolled separation” as stated in R6 may not be clear to all that the purpose is for the Planning Coordinator to alert the RC to scenarios that have the potential to be categorized as IROLs in the Operations arena based on the RC’s SOL methodology. Suggest rewording R6 to: “Each Planning Coordinator shall communicate scenarios that demonstrated IROL type conditions such as instability, Cascading, or.....” However, it should be made clear that the RC would make the determination if it would be considered an IROL based on the RC’s SOL methodology

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro**

**Answer** No

**Document Name**

**Comment**

R6 is better located in TPL-001-4 or FAC-013-2. The current language states that “any” instability, Cascading or uncontrolled separation should be communicated. Does the RC need or want to know about extreme disturbances or only P1-P7 events? It makes more sense to share the Planning Assessment and Transfer Capability assessments to the RC as part of the relevant standards.

Likes 0

Dislikes 0

<b>Response</b>	
<b>Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
<p>This requirement is already included in other planning standards, such as TPL-001-4 and IRO-017-1. The objective could be better accomplished by modifying or including specific details of the requirement in existing planning standards.</p> <p>IRO-017-1 requires the TPs and PCs to provide the system assessment to their RC. Any identified instability would be included in the system assessment. The RC is in the best position to inform the TOP in the RC area. TPL-001-4 also requires the PCs and TPs to share the system assessment to adjacent TPs and PCs.</p>	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Gladys DeLaO - CPS Energy - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
<p>This data is appropriate for the conditions and timeframes studied in the Planning Assessment. Additional operational analyses may be needed for particular operating conditions that are not part of the conditions and timeframes addressed by the Planning Assessment.</p>	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
<p>PNMR agrees with the information provided in R6. However, PNMR believes that R6 should be included in TPL-001 and should not result in a new FAC standard.</p>	

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

This data is appropriate for the conditions and timeframes studied in the Planning Assessment. Additional operational analyses may be needed for particular operating conditions that are not part of the conditions and timeframes addressed by the Planning Assessment.

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer** Yes

**Document Name**

**Comment**

Duke Energy request further clarification from the drafting team on the types of events that require communication from the PC to the RC and TOP in R6. The current language states that the PC shall communicate to the RC and TOP of "any" instances of instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near Term or the Long Term. Does this include "extreme events" as well?

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer** Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer**

Yes

**Document Name**

**Comment**

Peak is especially supportive of subpart 6.4 which requires communication of “Any Remedial Action Scheme action, undervoltage load shedding (UVLS) action, underfrequency load shedding (UFLS) action, interruption of Firm Transmission Service, or Non ~~critical~~ <sup>critical</sup> Load Loss required to address the instability, Cascading or uncontrolled separation;” This information is critical for the RC understanding the risks that have been identified and the measures that were taken in the Planning Assessments to address the risk. If this information is not provided, the RC has no way of knowing or understanding what kinds of risks for instability, Cascading, or uncontrolled separation that were identified and successfully mitigated via the measures listed in subpart 6.4. This unawareness can have significant adverse reliability consequences if the associated automatic schemes are rendered unavailable in operations. It is critical that the RC understand the risks that were identified and the means by which those risks were mitigated in the Planning Assessment so that these risks can be addressed in operations through the development of Operating Plans.

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

Yes

**Document Name**

**Comment**

In addition to the communication of information to impacted RCs and TOPs, the NSRF believes consideration should be given to including impacted Transmission Planners as well. Although the information is needed primarily by the RCs and TOPs, there is not currently a mechanism to communicate the information back to the impacted TPs for continued awareness. To ensure all parties remain aware of potential issues identified in the assessments, LES recommends the following change to R6:

**R6.** Each Planning Coordinator, **in coordination with each impacted Transmission Planner**, shall communicate any instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near ~~term~~ <sup>term</sup> Reliability ~~assessment~~ <sup>assessment</sup> to each impacted Reliability Coordinator and Transmission Operator.

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer** Yes

**Document Name**

**Comment**

Yes, I think it is appropriate to provide this information. As with above, I think it should be addressed in the TPL-001 standard (as part of R8 perhaps).

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer** Yes

**Document Name**

**Comment**

In addition to the communication of information to impacted RCs and TOPs, LES believes consideration should be given to including impacted Transmission Planners as well. Although the information is needed primarily by the RCs and TOPs, there is not currently a mechanism to communicate the information back to the impacted TPs for continued awareness. To ensure all parties remain aware of potential issues identified in the assessments, LES recommends the following change to R6:

**R6.** Each Planning Coordinator, **in coordination with each impacted Transmission Planner**, shall communicate any instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near **Transfer Capability** assessment to each impacted Reliability Coordinator and Transmission Operator.

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

SCE recommends one more additional sub-bullet be added such that the PC shall communicate any assumptions of system conditions critical in its identification of instability, Cascading or uncontrolled separation (such as load levels, local generation assumptions, etc). It is probably obvious but R6

does not currently require it.

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer**

Yes

**Document Name**

**Comment**

Yes, I think it is appropriate to provide this information. As with above, I think it should be addressed in the TPL-001 standard (as part of R8 perhaps).

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Gregory Campoli - New York Independent System Operator - 2</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	
Dislikes 0	
Response	
<b>Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name SPP Standards Review Group</b>	
Answer	Yes
Document Name	
Comment	
Likes 0	

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal**

**Power Pool, 6; - Brandon McCormick, Group Name FMPA**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl & Member G&Ts**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name Eversource Group**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer** Yes

**Document Name**

**Comment**

Likes 3 PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>	
----------------	--

Likes	0
-------	---

Dislikes	0
----------	---

<b>Response</b>	
-----------------	--

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>	
----------------	--

Likes	0
-------	---

Dislikes	0
----------	---

<b>Response</b>	
-----------------	--

**Wendy Center - U.S. Bureau of Reclamation - 5**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>	
----------------	--

Likes	0
-------	---

Dislikes	0
----------	---

<b>Response</b>	
-----------------	--

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

<b>Answer</b>	Yes
---------------	-----

<b>Document Name</b>	
----------------------	--

<b>Comment</b>	
----------------	--

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Richard Vine - California ISO - 2</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p>As required by TPL 001-4, planning coordinators implement corrective action plans for any instability, Cascading, or uncontrolled separation identified in planning assessments due to planning events involving single or multiple contingencies. Providing this information to RC may be useful if the corrective action plan is establishing an SOL. On the other hand, providing this information to RC may not be useful if the corrective action plan is transmission development.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	

15. Do you agree that the Planning Assessment of the Near-Term Transmission Planning Horizon and the Transfer Capability assessment, as stipulated in Requirement R6, are the appropriate assessments for identifying any instability, Cascading, or uncontrolled separation in the planning horizon? If yes, please provide supporting rationale; if no, please explain and provide alternative language.

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer** No

**Document Name**

**Comment**

Reference justification and alternative language proposed as part of the answer for the previous question (i.e., Question 14).

Likes 0

Dislikes 0

**Response**

**John Seelke - LS Power Transmission, LLC - 1**

**Answer** No

**Document Name**

**Comment**

See the response to Q16.

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer** No

**Document Name**

**Comment**

FAC-013 (TTC) is not required to have stability criteria, instability criteria, document UFLS or UVLS relay operation, or include Corrective action plans. It is recommended that the reference to the Transfer Capability assessment be removed from the proposed FAC-015-1 R6.

Likes 0

Dislikes 0

<b>Response</b>	
<b>Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
Please refer to the comments submitted by the SPP Standards Review Group.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Richard Vine - California ISO - 2</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
Development of SOLs and IROLs is the appropriate assessment for identifying any instability, Cascading, or uncontrolled separation in the planning horizon that is not mitigated by corrective action plans such as transmission development. TPL001-4 planning assessments require the PC to model peak load and firm transmission services but do not require stressing the system to identify its limits. Transfer Capability assessment is only applicable to tie lines.	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Planning assessments in TPL-001-4 are the appropriate assessments to identify system instability and cascading outages in the planning horizon. However, BPA does not see a need for a new standard. The objective is already addressed by TPL-001-4.	
Likes	0
Dislikes	0

<b>Response</b>	
Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Yes, with the same comment as question 14, with the addition that the FAC-013 standard is the appropriate place to require supplying Transfer Capability Assessment results to impacted RCs and TOPs.	
Likes	0
Dislikes	0
<b>Response</b>	
Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Based on the requirements of the new TPL-001-4, the Planning Assessment must identify any Near-Term Transmission Planning Horizon instability, Cascading or uncontrolled separation. The proposed FAC-015-1 R6 correctly references the reliability objective accomplished by TPL-001-4.	
Likes	0
Dislikes	0
<b>Response</b>	
Wendy Center - U.S. Bureau of Reclamation - 5	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Reclamation supports the Planning Assessment of the Near-Term Transmission Planning Horizon and the Transfer Capability assessment, as stipulated in Requirement R6, because these items properly identify potential risks.	
Likes	0
Dislikes	0

<b>Response</b>	
<b>Mike Smith - Manitoba Hydro - 1, Group Name</b> Manitoba Hydro	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
<p>These assessments look at extreme disturbances or non-firm transfers and would be the appropriate studies in the Planning Horizon that would be able to identify instability, Cascading or uncontrolled separation if these concerns existed.</p>	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
<p>Yes, with the same comment as question 14, with the addition that the FAC-013 standard is the appropriate place to require supplying Transfer Capability Assessment results to impacted RCs and TOPs.</p>	
Likes	0
Dislikes	0
<b>Response</b>	
<b>Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name</b> MRO NSRF	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
<p>As the Near-Term Transmission Planning Horizon is the closest to operating horizons, these are the most relevant results to pass on to those responsible for operating the system.</p>	
Likes	0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer** Yes

**Document Name**

**Comment**

The assessments applicable to R6 should be reflective of those assessments required by the NERC Reliability Standards. Both Planning Assessments and Transfer Capability assessments are required by the standards. Furthermore, it is possible that when performing Transfer Capability assessments, the first limitation encountered could be a stability limit (i.e., as power is transferred across an interface, a stability limitation is reached before any thermal or steady-state voltage limitation is reached). Because this is an operational possibility, Peak believes that Transfer Capability assessments should be included in R6. Peak also believes Transfer Capability assessments should be included in R1 through R3.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer** Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer** Yes

**Document Name**

**Comment**

No comments.

Likes 0

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3**

**Answer** Yes

**Document Name**

**Comment**

The PC also needs to send the results of its Planning Assessment or Transfer Capability Assessment to its Transmission Planners. This activity should happen before the results are sent to the RC and TOP.

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer** Yes

**Document Name**

**Comment**

Note: CAISO does not support this response.

Likes 0

Dislikes 0

**Response**

**Kevin Salsbury - Berkshire Hathaway - NV Energy - 5**

**Answer** Yes

**Document Name**

**Comment**

Near-term TP horizon is the closest to operating horizon

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

One of the purposes of the Planning Assessment is to capture any anticipated instability, Cascading or uncontrolled separation in the near-term and long-term transmission planning horizons.

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer** Yes

**Document Name**

**Comment**

We concur that both assessments for the Near-term Planning Horizon under TPL-001 and for transfer capability under FAC-013 are appropriate to be used because they are the closest to the Operations Horizon.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer** Yes

**Document Name**

**Comment**

PNMR agrees with the assessments as stipulated in R6, however, PNMR believes that R6 should be included in TPL-001 and should not result in a new FAC standard.

Likes 0

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer** Yes

**Document Name**

**Comment**

One of the purposes of the Planning Assessment is to capture any anticipated instability, Cascading or uncontrolled separation in the near-term and long-term transmission planning horizons.

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Planning Assessment of the Near-Term Transmission Planning Horizon and the Transfer Capability assessment, as stipulated in Requirement R6, are the appropriate assessments for identifying any instability, Cascading, or uncontrolled separation in the planning horizon. However, due to BES system topology differences between the Planning Horizon (usually all facility in-service) and Operations Horizon (N-1 or N-1 out of service due to planned or forced) then instability, Cascading, or uncontrolled separation MAY NOT be identified in the Planning Assessment during the Near-Term Transmission Planning Horizon and the Transfer Capability assessment. In the Operations Horizon, the Operating Planning Analyses (OPA) could and may still identify instability, Cascading, or uncontrolled separation due to latest BES modeling to real-time.

Also, the requirement for communicating Facility Rating appears to be redundant to the FAC-008 Reliability Standard.

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF****Answer** Yes**Document Name****Comment**

We think that it is unnecessary and less worthwhile to include the Long-Term Planning Horizon (6 - 10 years in the future) because the future system assumptions (load, generation, transfers, etc.) are more uncertain and speculative than the Near-Term Planning Horizon. So, the results would be less useful and subject to change than the Near-Term Planning Horizon results.

Likes 0

Dislikes 0

**Response****Thomas Foltz - AEP - 5****Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

**Response****John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1****Answer** Yes**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC****Answer** Yes**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Michelle Amarantos - APS - Arizona Public Service Co. - 1****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Kayleigh Wilkerson - Lincoln Electric System - 5****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer** Yes

**Document Name**

**Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Julie Hall - Entergy - 6****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECI & Member G&Ts****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMMPA**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name Tennessee Valley Authority**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

16. If you have any other comments that you haven't already provided in response to questions 11-15, please provide them here.

Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2

Answer

Document Name

Comment

ERCOT Comments:

Requirements R1, R2, and R3 contain similar language that generally requires the PC's Planning Assessments to use limits that are "equally limiting or more limiting" than the limits established pursuant to the RC's methodology. Each of these requirements also includes a second sentence that appears to allow the PC to use a less limiting value when the PC has a legitimate technical justification for doing so. This second sentence technically contradicts the first sentence. ERCOT proposes additional revisions to clarify that the second sentence operates as an exception to the first sentence.

Also, Requirements R1, R2, and R3 do not specify whether the technical justification provided by the PC must be acceptable to (or accepted by) the RC. In the event of a disagreement between the PC and RC, ERCOT suggests that the rule should be clear as to which entity's determination prevails. ERCOT presumes the RC's determination should prevail in such an event since the RC has ultimate responsibility for overseeing the SOL methodology under proposed FAC-011, Requirement R1. Allowing the PC what amounts to unilateral discretion in establishing limits would undermine the principle that the RC's SOL methodology should generally govern, as reflected in the first sentence of Requirements R1, R2, and R3 in FAC-015. ERCOT therefore recommends revisions to the last sentence of each of these three requirements.

The following revisions reflect both of the changes described above:

R1. Each Planning Coordinator, when developing its steady state voltage limits used in its Planning Assessment of the Near Term, shall use the limits established in accordance with its Reliability Coordinator's SOL Methodology, **except that** the Planning Coordinator **may** use less limiting Facility Ratings than the Facility Ratings established in accordance with its Reliability Coordinator's SOL methodology **if**, the Planning Coordinator **provides** a technical justification **that is accepted by** its Reliability Coordinator.

R2. Each Planning Coordinator shall implement a process to ensure that System steady state voltage limits used in its Planning Assessment of the Near Term, shall use the limits established in accordance with its Reliability Coordinator's SOL Methodology, **except that** the Planning Coordinator **may use** less limiting System steady state voltage limits established in accordance with its Reliability Coordinator's SOL Methodology if the Planning Coordinator **provides** a technical justification **that is accepted by** its Reliability Coordinator.

R3. Each Planning Coordinator shall implement a process to ensure the stability performance criteria used in its Planning Assessment of the Near Term, shall use the stability performance criteria specified in its Reliability Coordinator's SOL Methodology, **except that** the Planning Coordinator **may use** less limiting stability performance criteria than the stability performance criteria specified in its Reliability Coordinator's SOL Methodology if the Planning Coordinator **provides** a technical justification **that is accepted by its** Reliability Coordinator.

\*\*\*\*Please refer to the attached comment form for redlined language.

Likes 0

Dislikes 0

### Response

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name** ACES Standards Collaborators

**Answer**

**Document Name**

**Comment**

1. We ask the SDT to clarify that references to a RC's SOL Methodology is done, as required, per Reliability Standard FAC-011-4. The proposed standard does not make this distinction.
2. The VSLs identified for Requirement R4 do not identify a failure to provide SOL information to requesting PCs.

Likes 0

Dislikes 0

### Response

**Michael Jones - National Grid USA - 1**

**Answer**

**Document Name**

**Comment**

National Grid supports the NPCC RSC Group comments.

Additional comments for consideration:

There is potential area of concern as to why the TP is not included in the PC's communication of any instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near-Term Transmission Planning Horizon or its Transfer Capability assessment FAC-015-1, Requirement R6.

Due to lack of consistent definitions/terminology related to definitions of stability concepts regarding both transient stability and small signal-stability (as related to angle stability) as well as voltage stability, the requirement to implement a process related to the stability performance criteria in Requirement R3 (et.al.) is not clearly defined. We suggest revising by using language related to Requirement R4 and R5 in NERC Reliability Standard TPL-001-4, which states that each TP and PC shall have "criteria for acceptable System steady state voltage limits, post-Contingency voltage deviations, and the transient voltage response for its System" and "criteria for acceptable System steady state voltage limits, post-Contingency voltage deviations, and the transient voltage response for its System."

Likes 0

Dislikes 0

### Response

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

Answer

Document Name

Comment

Not applicable.

Likes 0

Dislikes 0

Response

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

Answer

Document Name

Comment

This comment is regarding to R4 of FAC-015-1. R4 stated that “Each Planning Coordinator shall provide the Facility Ratings, System steady-state voltage limits, and stability performance criteria for use in its Planning Assessment to its Transmission Planners and to requesting Planning Coordinator’s”. Entities understand that there will need to be two-ways communication between Planning Coordinator (PC) and Transmission Planner (TP). With that said, TPs are much closer to the source of ‘Facility Ratings and System steady-state voltage limits’. It would make better sense for TP to provide ‘Facility Ratings and System steady-state voltage limits’ to PC and consistent to the current practice of TOPs providing ‘Facility Ratings and System steady-state voltage limits’ to the RC. The R4 as proposed is as having the RC providing ‘Facility Ratings and System steady-state voltage limits’ to TOPs. As proposed R4, the PC will need to request the ‘Facility Ratings and System steady-state voltage limits’ from the TP and/or TPs and then the PC will just provide back to the TP/TPs. As drafted, R4 is an effort that involved extra man power and time with no benefit.

Likes 0

Dislikes 0

Response

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
None.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>James Grimshaw - CPS Energy - 3</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
FAC-015 Requirement R5 is inappropriately placed outside of the TPL-001 standard. We believe all requirements to perform the Planning Assessment should be housed within the TPL-001 standard to avoid confusion or double work.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Gladys DeLaO - CPS Energy - 1</b>	
<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
FAC-015 Requirement R5 is inappropriately placed outside of the TPL-001 standard. We believe all requirements to perform the Planning Assessment should be housed within the TPL-001 standard to avoid confusion or double work.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Leonard Kula - Independent Electricity System Operator - 2</b>	
<b>Answer</b>	

**Document Name****Comment**

FAC-15-1 is a step in the right direction. However, FAC-15-1 should address that Planning Assessments and Operations studies for derivation of SOLs and IROLs are not of the same scope in terms of number of facilities considered out of service. Therefore simply enforcing the performance criterion used in the Planning Assessment be more restrictive than that used in Operations does not materially improve the operability of planned facilities. The scope of the studies in the Operations Horizon should be increased to bridge this gap through Requirements in FAC-11-4 and FAC-14-3.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer****Document Name****Comment**

PNMR seeks clarification on the use of single contingency criteria. FAC-011-4 defines a single contingency as a TPL-001 P1 event. In TPL-001 categories P1 and P2 are labeled single contingency. If the RC defines criteria for single and multiple contingency based on FAC-011-4, will the criteria for the single contingency be used for both P1 and P2 events of TPL-001 even though the contingency definition of P2 does not match the single contingency definition in FAC-011-4?

PNMR believes that FAC-015 has requirements that should be part of the TPL-001 Planning Assessment. Instead of creating a separate standard, PNMR recommends that TPL-001 should be revised to include the new requirements.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer****Document Name****Comment**

The work identified in FAC-015 would be better positioned in the TPL-001 standard. A SAR should be drafted to open the TPL-001 standard to include those required items from this proposed new standard rather than creating a new standard. Coordination of criteria could then be determined between the TP and PC as identified in the TPL-001 standard R7 rather than by this new standard by parties familiar with the information in the local regions.

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

**Document Name**

**Comment**

More clarification is needed related to the identification of Facility Ratings. As the Transmission Owners are already obligated to provide planning and operating ratings under FAC-008-3 and MOD-032-1, the burden of establishing a technical justification for potentially different ratings used in planning and operations should be placed upon Functional Entities who own facilities (such as Transmission or Generation). The drafting team should clarify that asset owners typically provide multiple ratings for a given asset based on various conditions and the intent of this standard is to ensure how the RC and PC pick those ratings is consistent.

Note: ERCOT does not support this response.

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

The existing FAC-010, FAC-011, and FAC-014 framework provides the required coordination between planning and operation horizons from the planning coordinator perspective.

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed**

**Answer**

**Document Name**

**Comment**

More clarification is needed related to the identification of Facility Ratings. As the Transmission Owners are already obligated to provide planning and operating ratings under FAC-008-3 and MOD-032-1, the burden of establishing a technical justification for potentially different ratings used in planning

and operations should be placed upon Functional Entities who own facilities (such as Transmission or Generation). The drafting team should clarify that asset owners typically provide multiple ratings for a given asset based on various conditions and the intent of this standard is to ensure how the RC and PC pick those ratings is consistent.

Likes 0

Dislikes 0

### Response

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer**

**Document Name**

**Comment**

It appears that one of the objectives here is for the Planning Coordinator to make the Reliability Coordinator aware of system issues identified in the Planning Assessments that could impact the Operations timeframe. CHPD recommends that the TPL-001-4 standard, R8, be modified to add the Reliability Coordinator to the distribution of the Planning Assessment by the Planning Coordinator and Transmission Planner to adjacent Planning Coordinators and Transmission Planners. TPL-001-4 R8 allows the Reliability Coordinator to request this document already, but it would make sense to add the Reliability Coordinator (and possibly Transmission Operator) to the mandatory Planning Assessment distribution in order to pass on the issues observed in the assessment of planned operations for the planning horizon.

Likes 0

Dislikes 0

### Response

**David Jendras - Ameren - Ameren Services - 3**

**Answer**

**Document Name**

**Comment**

It seems to us that proposed standard FAC-015 is missing a requirement (R7) for the Transmission Planners to communicate any instability, Cascading, or uncontrolled separation in either its Planning Assessment information to its TOP, PC, and RC (similar to R6). This requirement would be a slight expansion of IRO-017-1 R3 and consideration should be given to moving this requirement to the new FAC-015-1 standard to keep all TP applicable items together.

Likes 0

Dislikes 0

### Response

**Anthony Jablonski - ReliabilityFirst - 10**

<b>Answer</b>	
<b>Document Name</b>	
<b>Comment</b>	
<p><b>Even though ReliabilityFirst agrees with the changes in the standard, ReliabilityFirst provides the following comments for consideration related to the Violation Severity Levels sections:</b></p> <p>1. Violation Severity Levels</p> <p>i. Requirement R4 VSL</p> <p>a. The second part of the High and Severe VSL is confusing as it references “information” while Requirement R4 references “criteria”. ReliabilityFirst recommends the following for consideration:</p> <p>1. The Planning Coordinator failed to provide one element of the required criteria (i.e., Facility Ratings, System steady Coordinator’s.</p> <p>b. The language of the first part of the High and Severe VSL are completely the same. Since there is no reference in any of the VLSs related to providing criteria to the requesting Planning Coordinators, ReliabilityFirst believes the first part of the Severe VSL should state “... to its requesting Planning Coordinators” instead of “... to all of its Transmission Planners.”</p>	

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer**

**Document Name**

**Comment**

None.

Likes 0

Dislikes 0

**Response****Sing Tay - Sing Tay On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5; - Sing Tay****Answer****Document Name****Comment**

Refer to comments submitted by SPP Standards Review Group.

Likes 0

Dislikes 0

**Response****Scott Downey - Peak Reliability - 1****Answer****Document Name****Comment**

Peak believes that the Transmission Planner should be included along with the Planning Coordinator for communicating any instability, Cascading, or uncontrolled separation in FAC-015-1 requirement R6. Both Planning Coordinators and Transmission Planners perform Planning Assessments for the Near-Term Transmission Planning Horizon, therefore, it is possible that either entity could identify instability, Cascading, or uncontrolled separation in their Planning Assessments. The revised language could read, "Each Planning Coordinator and Transmission Planner shall communicate any instability, Cascading or uncontrolled separation identified in either its Planning Assessment of the Near ~~Term~~ <sup>Planning Horizon</sup> units Transfer Capability assessment to each impacted Reliability Coordinator and Transmission Operator. Transmission Planners are not required to perform Transfer Capability Assessments, so any revised language might need to account for that.

Likes 0

Dislikes 0

**Response****John Seelke - LS Power Transmission, LLC - 1****Answer**

**Document Name****Comment**

The stated purpose of FAC-015-1 is:

“To ensure the Facility Ratings, System steady state performance criteria used in Planning Assessments are coordinated with the Reliability Coordinator’s System Operating Limits (SOL) Methodology.”

LSPT does not disagree with this purpose. It requires two-way communications between the RC and its TOPs and the PC and its TPs. However, LSPT proposes a more efficient way to meet this purpose.

**Alternate FAC-015-000 Proposal**

There are 15 Reliability Coordinators (per the NERC Compliance Registry) in the NERC footprint and they are listed below. Except for VACAR South and Peak Reliability, the rest are also registered as Planning Coordinators. In total, NERC has 78 Planning Coordinators are registered.

**Reliability Coordinators in NERC (as of 9/29/2017)**

1. Midcontinent Independent System Operator, Inc.
2. Saskatchewan Power Corporation
3. Southwest Power Pool
4. Hydro-Quebec TransEnergie
5. ISO-NE
6. New Brunswick Power Corporation
7. New York Independent System Operator
8. Ontario IESO
9. PJM Interconnection, LLC
10. Florida Reliability Coordinating Council, Inc.
11. Southern Company Services, Inc. - Trans
12. Tennessee Valley Authority
13. VACAR South
14. Electric Reliability Council of Texas, Inc.
15. Peak Reliability

As an alternative to the present FAC-015-1, LSPT suggests requiring each Reliability Coordinator to facilitate collaborative discussions with its Transmission Operators that use its SOL Methodology and with the Planning Coordinators and Transmission Planners in its Reliability Coordinator Area. Those discussions would be bounded by stated purpose of the proposed FAC-015-1 standard. The results of such discussions would be documented to identify any reliability-related gaps between operations and planning and vice versa regarding the purpose of the standard. For any identified gaps, the RC would be required to develop and implement a Corrective Action Plan. Progress on CAPs would be required to be collectively

reviewed periodically (LSPT suggests this be no more than annually).

This is a far more efficient approach to address the standard's purpose.

### Comments on FAC-015-1 as proposed

LSPT is pleased that the retirement of FAC-010-3 eliminated the unnecessary requirement for PCs to develop an SOL Methodology and use that methodology to develop SOLs and IROLs for the planning horizon. Although FAC-015-1 carried over language from the proposed retired FAC-010-3 and proposed revised FAC-014-2, LSPT does not agree with the requirements that FAC-015-1 would impose upon PCs and their associated TPs.

Per R1 through R5 in FAC-015-1, the Planning Assessment in R6 must either use the Facility Ratings, System steady performance criteria from the RC's SOL Methodology *or* provide a technical justification to the RC if the PC's values differ from the RC's values. The RC is not subject to the standard, and as written, no method is proposed to resolve technical differences between the RC and PC.

There are many good reasons for differences between a Planning Assessment and an Operational Planning Assessment. For example, some RC's use a defined set of Normal and Emergency Facility Ratings based upon various ambient temperatures, including daytime and nighttime rating reflecting solar impacts. These ratings cover conditions that will be experienced by operators. Planner's typically use some of the RC's ratings as its 'seasonal ratings' that, when combined with the temperature impacts of load, stress the System. Each is correct in its application.

The end product in R6 is a Planning Assessment in the Near-Term Planning Horizon along with Corrective Action Plans for any deficiencies. This is well beyond FAC-015-1's stated purpose. In addition, it is largely duplicative or in TPL-001-4 requirements (see R2.7 in TPL-001-4), except that the implementation of TPL-001-4 would use planning and not operating assumptions.

- The R6 phrase "or its Transfer Capability assessment" would not be produced in TPL-001-4. The SDT did not provide any rationale for this language.
- FAC-015-1 does not state whether the PC and TP are required to use the SOL Methodology's Contingency List or its planning Contingency list per TPL-001-4.

In summary, FAC-015-1 places significant requirements on PCs and their TPs, and these requirements are not required to meet the standard's purpose. The main rationale for the FAC-015-1 requirements appears to be that they came from standards being retired (FAC-010-3) or revised (FAC-014-2). The SDT should justify the requirements on their own merits independent of previous standards.

Likes 0

Dislikes 0

### Response

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer**

**Document Name**

**Comment**

R4 – would prefer to see something about requesting Planning Coordinators with a reliability need instead of any Planning Coordinator that requests.

R6 – could consider including what is provided to impacted RCs in the IRO-017 or TPL-001 standard. This seems to have requirements for the

Planning Assessment scattered over 3 standards.

R6 – would have preferred use of the term “IROL like conditions” instead of words copied from the IROL definition.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer**

**Document Name**

**Comment**

One area of coordination that is missing is having the PC review stability limits or IROLs determined by the Transmission Operator and/or Reliability Coordinator, especially in cases where the limit was not determined by the PC – possibly because the PC only considered firm uses as per TPL-001-4 R1.1.5 or Transfer Capability assessment methodology (FAC-013-2 R1) did not stress the same area as the operating assessments. The PC may want to consider the identified stability limit for future confirmation in a Planning Assessment or Transfer Capability Assessment. The criteria for the selection of transfers to be assessed (FAC-013-2 R1.1) could be based on review of information provided to the PC from the RC/Transmission Operator. It is preferable to modify FAC-013-2 to address this issue rather than include in FAC-015.

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer**

**Document Name**

**Comment**

**Note:** While we agree with the retirement of FAC-010, and revisions to FAC-011 and 014 we will be voting “No” because of our concerns with FAC-015. These changes to FAC-010, FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer**

**Document Name**

**Comment**

The NSRF remains concerned with the proposed definition of “System Voltage Limit” as the phrase “reliable system operations” was replaced with “acceptable System performance.” Acceptable System performance should rely on, among other factors, the definition of SOL Exceedance which is in a separate ballot and ballot period. It is inappropriate to approve a NERC standard without a clear understanding of how the definitions will impact the standard. The NSRF remains concerned with unintended impacts of separating the standard and the proposed SOL definition. The NSRF also has this concern with the following question.

Likes 1

Tay Sing On Behalf of: John Rhea, OGE Energy - Oklahoma Gas and Electric Co., 3, 1, 6, 5;

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

**Document Name**

**Comment**

Thank you for the opportunity to comment on this new standard. However, BPA does not see the need to create new planning standards to accomplish the goals. Most of the requirements are either partially or fully included in other planning standards. The objectives could be better accomplished by adding or modifying existing planning standards.

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body**

**Answer**

**Document Name**

**Comment**

**Note:** While we agree with the retirement of FAC-010, and revisions to FAC-011 and 014 we are voting “No” because of our concerns with FAC-015. These changes to FAC-010, FAC-011, FAC-014 and FAC-015 form an integrated whole, so approving the changes to some standards and not others could create a reliability gap.

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer**

**Document Name**

**Comment**

None

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer**

**Document Name**

**Comment**

In regards to the proposed R5 (for which no questions have been asked by the SDT), why was "System steady-state voltage limits" used within this obligation rather than the newly proposed "System Voltage Limit?"

Likes 0

Dislikes 0

**Response**

**Steven Mavis - Edison International - Southern California Edison Company - 1**

**Answer**

**Document Name**

**Comment**

Please refer to comments submitted by Robert Blackney on behalf of Southern California Edison.

Likes 0

Dislikes 0

**Response**

17. Do you agree with the proposed definition of System Voltage Limit? If not, please explain and provide alternative language.

Thomas Foltz - AEP - 5

Answer No

Document Name

Comment

Within the definition itself, is the word "limits" the best choice for supposedly indicating that it is a numerical value? Instead, might this be more appropriate? *"The maximum and minimum steady-state \*voltage\* limits (both normal and emergency) that provide for acceptable System performance."*

Likes 0

Dislikes 0

Response

Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC

Answer No

Document Name

Comment

BPA recommends including separate definitions for minimum steady voltage limits ensure acceptable power system performance while maximum steady voltage limits are not exceeded. The approaches for determining and responding to exceedances are different for each type of voltage limit (minimum and maximum).

BPA therefore proposes the following revisions to the definition of System Voltage Limit:

"The minimum steady voltage limits (both normal and emergency) that provide for acceptable System performance. The maximum steady voltage limits are not exceeded." base

Likes 0

Dislikes 0

Response

Kayleigh Wilkerson - Lincoln Electric System - 5

Answer No

Document Name

**Comment**

As currently written, the words maximum and minimum introduce confusion as they seem to imply only one upper limit and one lower limit required by the definition. To improve clarity, LES recommends the following change:

The steady-state voltage limits, **including both normal and emergency with applicable allowable timeframes**, that provide for acceptable System performance.

Likes 0

Dislikes 0

**Response**

**Cynthia Kneisl - Midwest Reliability Organization - 1,2,3,4,5,6 - MRO, Group Name MRO NSRF**

**Answer** No

**Document Name**

**Comment**

As currently written, the words *maximum* and *minimum* introduce confusion as they seem to imply only one upper limit and one lower limit required by the definition. To improve clarity, the NSRF recommends the following change:

The steady-state voltage limits, **including both normal and emergency with applicable allowable timeframes**, that provide for acceptable System performance.

Likes 0

Dislikes 0

**Response**

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

**Answer** No

**Document Name**

**Comment**

CenterPoint Energy generally agrees with the proposed definition; however, we believe that the phrase, "acceptable System performance" could be subjective. System Voltage Limits should always respect, both in normal and emergency conditions, SOLs and IROLs, both of which are defined and measurable.

CenterPoint suggests the following definition of System Voltage Limit for the SDT to consider:

"The maximum and minimum steady of the BES" e limits (both nor

As a point of reference, the NERC glossary defines Reliable Operation as: "Operating the elements of the [Bulk-Power System] within equipment and electric system thermal, voltage, and stability limits so that instability, uncontrolled separation, or cascading failures of such system will not occur as a

result of a sudden disturbance, including a cybersecurity incident, or unanticipated failure of system elements.”

Likes 0

Dislikes 0

### Response

**Daniel Grinkevich - Con Ed - Consolidated Edison Co. of New York - 1**

**Answer**

No

**Document Name**

**Comment**

Typically there are additional Thermal ratings above the "normal" limit that have a time frame associated with them. For example an emergency limit may be a 15 minute rating, i.e. the flow can be at the emergency rating for 15 minutes. Therefore, by design, being above the normal rating is not going to result in damage to the BES elements. Therefore the 1st bullet in the SOL Exceedance definition should be revised to "Actual flow through a Facility is above the Facility's Rating and the associated allowable time frame is exceeded.

Likes 0

Dislikes 0

### Response

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD**

**Answer**

No

**Document Name**

**Comment**

The existing constructs (Facility Ratings, voltage performance criteria, voltage stability/reactive margin) should be adequate to address high voltage conditions (typically through Facility Ratings) and low voltage (typically through voltage performance criteria and voltage stability/reactive margin). CHPD feels that introducing another voltage-limit term will only serve to confuse the meanings of these other terms.

Additionally, CHPD feels it would have a greater reliability for NERC to develop a system voltage whitepaper to discuss various voltage Facility Ratings methods and the reliability concerns that should be addressed with low and high voltage performance criteria, as well as revisiting transient and reactive margin concepts. A whitepaper would help clarify expectations, bring useful dialogue and improve industry knowledge in this area, whereas a third defined term describing voltage will not likely bring the desired clarity.

CHPD does not recommend the creation of the term 'System Voltage Limit'.

Likes 0

Dislikes 0

### Response

Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPA

Answer No

Document Name

**Comment**

FMPA agrees with other commenters that suggest the word "limits" should be removed from the System Voltage *Limit* definition

Likes 0

Dislikes 0

**Response**

Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin

Answer No

Document Name

**Comment**

As currently written, the words maximum and minimum introduce confusion as they seem to imply only one upper limit and one lower limit required by the definition. To improve clarity, ITC recommends the following change:

The steady-state voltage limits, including both normal and emergency with applicable allowable timeframes, that provide for acceptable System performance.

Likes 0

Dislikes 0

**Response**

Kevin Salsbury - Berkshire Hathaway - NV Energy - 5

Answer No

Document Name

**Comment**

Concerns with the unapproved SOL and SOL Exceedance definitions and their applicability to this definition.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer** No

**Document Name**

**Comment**

PNMR proposes removal of the phrase “(both normal and emergency)”. In the rational the SDT stated they wanted to allow flexibility but including normal and emergency requires the establishment of multiple limits without guidelines of what the limits will address, i.e. finite time period, type of outage.

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer** No

**Document Name**

**Comment**

To provide additional clarity and consistency with the proposed NERC Glossary Term, *System Operating Limit*, we recommend the proposed *System Voltage Limit (SVL)* definition affirmatively state SVLs are used in the operation of the BES.

**Proposed alternative language:**

“The maximum and minimum steady-state Facility voltage limits (both normal and emergency) used in the operation of the Bulk Electric System.”

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer** No

**Document Name**

**Comment**

ATC does not believe there is a need for the term System Voltage Limit. The current FAC-008-3 standard already requires GOs and TOs to determine

Facility voltage Ratings, and these ratings are already captured by the current SOL definition. Therefore, there is no need for the proposed definition of System Voltage Limit.

Likes 0

Dislikes 0

### Response

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer**

Yes

**Document Name**

**Comment**

However, this proposal seems to be redundant with the FAC-008 voltage limit already established.

Likes 0

Dislikes 0

### Response

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

SRP generally supports the proposed definition. However SRP will be voting Negative on the ballot due to recommended changes to the proposed standards.

Likes 0

Dislikes 0

### Response

**Scott Downey - Peak Reliability - 1**

**Answer**

Yes

**Document Name**

**Comment**

Peak agrees with the proposed definition for System Voltage Limit.

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3**

**Answer**

Yes

**Document Name**

**Comment**

As a result of this change, does the definition of Facility Rating also need to change to remove "the maximum or minimum voltage" part of that definition?

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name** Seattle City Light Ballot Body

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Wendy Center - U.S. Bureau of Reclamation - 5****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Mike Smith - Manitoba Hydro - 1, Group Name Manitoba Hydro****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**David Ramkalawan - Ontario Power Generation Inc. - 5**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**John Seelke - LS Power Transmission, LLC - 1**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer**

Yes

**Document Name**

**Comment**

Likes 3

PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name Duke Energy**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name AECl & Member G&Ts**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name** RSC no Dominion NextERA Con-Ed

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Leonard Kula - Independent Electricity System Operator - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Richard Vine - California ISO - 2**

**Answer**

**Document Name**

**Comment**

The California ISO supports the comments of the ISO/RTO Council Standards Review Committee

Likes 0

Dislikes 0

**Response**

**Gregory Campoli - New York Independent System Operator - 2**

**Answer**

**Document Name**

**Comment**

The SDT should consider a reference to facility voltage rating. The clarification should be provided that illustrates the relationship similar to between thermal facility rating and System Operation Limit; and facility voltage rating and System Voltage Limit.

Likes 0

Dislikes 0

**Response**

18. Do you agree with the Implementation Plan? If not, please provide the basis for your disagreement and an alternate proposal.

**Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators**

**Answer** No

**Document Name**

**Comment**

This is a significant paradigm shift for industry, affecting personnel from both operations and planning on how SOLs are handled and used within assessments. Time is needed to coordinate activities, particularly between RCs and PCs on how information is dispersed to TOPs and TPs, respectively. Additional time will also be needed for training that will include a larger audience than just operating personnel identified for Reliability Standard PER-005-2. Moreover, depending on the significance of a compliance burden introduced by these standards, registered entities will need time to procure additional staff and resources for their established compliance programs. We believe an implementation period no less than 24 months is appropriate.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer** No

**Document Name**

**Comment**

PNMR believes that the implementation time frame should be a minimum of 36 months to allow active participation by all impacted entities especially PA and TOPs since as written, FAC-011 and FAC-015 will require the PA and TOP to plan and operate their system to new system performance criteria.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer** No

**Document Name**

**Comment**

The 12 month implementation plan is only sufficient to put in place the required processes necessary to facilitate the requirements as stated in the new and revised standards. In order to then allow for a cycle of the TPL-001 standard to also be accommodated to facilitate this new SOL process another

12 months would need to be added into the implementation plan to allow for this work specifically.

Likes 0

Dislikes 0

**Response**

**Mark Riley - Associated Electric Cooperative, Inc. - 1, Group Name** AECI & Member G&Ts

**Answer**

No

**Document Name**

**Comment**

The new term and new/revised standards require Responsible Entities to develop a methodology and to establish further coordination between the RCs and TOPs. These efforts require more than 12 months for adequate development time and coordination between Responsible Entities. AECI recommends that the implementation plan should be extended to 24 months to allow Responsible Entities the time needed to implement the new/revised standards.

Likes 0

Dislikes 0

**Response**

**Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name** Chelan PUD

**Answer**

No

**Document Name**

**Comment**

Standards need additional modification – once this is done, the proposed Implementation Plan can be assessed.

Likes 0

Dislikes 0

**Response**

**Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RF, Group Name** Duke Energy

**Answer**

No

**Document Name**

**Comment**

Based on the level of work that is anticipated, Duke Energy does not agree with the proposed Implementation Plan, and recommends that the drafting team consider extending the Implementation Plan to 24 months.

Likes 0

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer**

No

**Document Name**

**Comment**

The new term System Voltage Limit and requirements in FAC-011-4 R3 will require methodology development and coordination between the RC and TOPs to address common limits as well as coordination. Once complete, the studies will need to be performed based on these new concepts, which may take more than 12 months. Also, the language in FAC-011-4 R2 is a change which will result in the need to address common limits as well as coordination.

Likes 0

Dislikes 0

**Response**

**Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body**

**Answer**

No

**Document Name**

**Comment**

City Light would like to see the standard resolution first.

Likes 0

Dislikes 0

**Response**

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer**

No

**Document Name**

**Comment**

As documented above, BPA does not believe a new standard needs to be created.

Likes 0

Dislikes 0

**Response**

**Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie**

**Answer**

No

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shivaz Chopra - New York Power Authority - 1,3,5,6**

**Answer**

Yes

**Document Name**

**Comment**

Supporting NPCC comments

Likes 0

Dislikes 0

**Response**

**Scott Downey - Peak Reliability - 1**

**Answer**

Yes

**Document Name**

**Comment**

Peak agrees with the proposed implementation plan.

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

SRP generally supports the proposed Implementation Plan. However SRP will be voting Negative on the ballot due to recommended changes to the proposed standards.

Likes 0

Dislikes 0

**Response**

**Michael Jones - National Grid USA - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Lauren Price - American Transmission Company, LLC - 1 - MRO,RF**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Elizabeth Axson - Electric Reliability Council of Texas, Inc. - 2**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Gladys DeLaO - CPS Energy - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response****Kevin Salsbury - Berkshire Hathaway - NV Energy - 5****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****James Grimshaw - CPS Energy - 3****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response****Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name RSC no Dominion NextERA Con-Ed****Answer**

Yes

**Document Name****Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name** Eversource Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name** FMPPA

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Julie Hall - Entergy - 6**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Preston Walker - PJM Interconnection, L.L.C. - 2 - SERC,RF**

**Answer** Yes

**Document Name**

<b>Comment</b>	
Likes 3	PSEG - PSEG Energy Resources and Trade LLC, 6, Barton Karla; PSEG - Public Service Electric and Gas Co., 3, Mueller Jeffrey; PSEG - Public Service Electric and Gas Co., 1, Smith Joseph
Dislikes 0	
<b>Response</b>	
<b>John Seelke - LS Power Transmission, LLC - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Donald Hargrove - OGE Energy - Oklahoma Gas and Electric Co. - 3</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name** Southern Company

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Kayleigh Wilkerson - Lincoln Electric System - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michelle Amarantos - APS - Arizona Public Service Co. - 1**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC**

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Thomas Foltz - AEP - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

19. The SDT asserts the combination of proposed FAC-011-4, FAC-014-3, and FAC-015-1 provide entities with flexibility to meet the reliability objectives in the project Standards Authorization Request (SAR) in a cost effective manner. Do you agree? If you do not agree, or if you agree but have suggestions for improvement to enable additional cost effective approaches to meet the reliability objectives, please provide your recommendation and, if appropriate, technical justification.

**Aaron Cavanaugh - Bonneville Power Administration - 1,3,5,6 - WECC**

**Answer** No

**Document Name**

**Comment**

As documented above, BPA does not believe a new standard needs to be created.

Likes 0

Dislikes 0

**Response**

**Wendy Center - U.S. Bureau of Reclamation - 5**

**Answer** No

**Document Name**

**Comment**

Reclamation has concerns with possible misinterpretation of FAC-011-4 R4.2 and R5 as it implies Real-Time Assessments will include Stability. Reclamation also does not agree with the identified single Contingency and multiple Contingencies for use in determining stability limits because the TOP will inform the RC which Contingencies are credible.

Likes 0

Dislikes 0

**Response**

**Pamela Hunter - Southern Company - Southern Company Services, Inc. - 1,3,5,6 - SERC, Group Name Southern Company**

**Answer** No

**Document Name**

**Comment**

As proposed, we perceive this Standard as requiring additional resources for stability studies and compliance documentation such that it will add cost to our business. Furthermore, the proposed Standard will not change the way we increase reliability or operate the system.

Likes 0

Dislikes 0

**Response**

**Mike Smith - Manitoba Hydro - 1, Group Name** Manitoba Hydro

**Answer**

No

**Document Name**

**Comment**

Changes proposed to FAC-011-4 and FAC-014-3 as well as the retirement of FAC-010-3 are reasonable. The development of FAC-015 seems to be burdensome, especially the Facility Rating comparison exercise. Some of the proposed changes fit better into existing standards TPL-001 and FAC-013.

Likes 1

Michael Watkins, N/A, Watkins Michael

Dislikes 0

**Response**

**John Seelke - LS Power Transmission, LLC - 1**

**Answer**

No

**Document Name**

**Comment**

LSPT's proposed alternative to FAC-015-1 in Q16 meets the proposed standard's purpose in a more efficient manner.

Likes 0

Dislikes 0

**Response**

**Bridget Silvia - Sempra - San Diego Gas and Electric - 3**

**Answer**

No

**Document Name**

**Comment**

Only consistency in requirements and criteria would help to increase "cost effectiveness" in our environment where legal/regulatory approval processes

impede the effort in maintaining system reliability.

Likes 0

Dislikes 0

**Response**

**Allie Gavin - Allie Gavin On Behalf of: Michael Moltane, International Transmission Company Holdings Corporation, 1; - Allie Gavin**

**Answer** No

**Document Name**

**Comment**

The method that the set of standards has been put together forces everyone into a defined process rather than defining the objective of the standard and allowing every group to identify their own cost effective method of accomplishing the objective. The organization of the requirements especially with those found in FAC-015 should have been incorporated in other already existing standards (TPL-001 or IRO-017). This new proposed standard is not cost effective and sets up organizations for compliance risks due to developing a third standard with obligations tied to the TPL-001 standard that should have just been added to this standard.

Likes 0

Dislikes 0

**Response**

**David Jendras - Ameren - Ameren Services - 3**

**Answer** No

**Document Name**

**Comment**

We do not see any flexibility to meet the objectives. For standard FAC-015-1, we have offered alternative ideas that the PC and RC should be providing technical justification for developing more stringent system performance requirements than the system is presently planned. We believe that if the draft language remains unchanged, depending on the imposed requirement by the PC or RC, significant dollars may need to be expended to meet the new, more stringent requirements.

Likes 0

Dislikes 0

**Response**

**Laurie Williams - PNM Resources - Public Service Company of New Mexico - 1**

**Answer** No

<b>Document Name</b>	
<b>Comment</b>	
PNMR believes that the proposed FAC-011 and FAC-015 allow one entity, the RC, to change long standing system performance criteria used by entities for the operation and planning of the system which could result in the need to implement numerous system changes to meet the RC's criteria.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Lauren Price - American Transmission Company, LLC - 1 - MRO,RF</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
ATC is concerned with the application of the RC SOL methodology to the TOP through FAC-014-3 with respect to the requirements regarding stability limits and stability analysis in FAC-011-4 R4 and R5. The current proposal may require a significant increase in stability analyses, whether in OPAs and RTAs, that are not warranted in a local TOPs system but is mandated because a TOP must follow an RC's one-size-fits-all methodology.	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Brian Van Gheem - ACES Power Marketing - 6 - NA - Not Applicable, Group Name ACES Standards Collaborators</b>	
<b>Answer</b>	No
<b>Document Name</b>	
<b>Comment</b>	
<ol style="list-style-type: none"> <li>1. The proposed standards require direct communication between the RC and the impacted entities that would be documented through electronic communications or voice recordings. This approach is cumbersome and inefficient. We believe the standards should instead allow entities to use more automated mechanisms for exchanging SOL information.</li> <li>2. We thank you for this opportunity to provide these comments.</li> </ol>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Shivaz Chopra - New York Power Authority - 1,3,5,6</b>	
<b>Answer</b>	Yes

<b>Document Name</b>	
<b>Comment</b>	
Supporting NPCC comments	
Likes 0	
Dislikes 0	
<b>Response</b>	
Janis Weddle - Public Utility District No. 1 of Chelan County - 6, Group Name Chelan PUD	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Workload and operational impacts are likely to be in-line with current practice. While FAC-010 is proposed to be removed, FAC-015 replaces it, so the baseload compliance workload remains unchanged.	
Likes 0	
Dislikes 0	
<b>Response</b>	
Brandon McCormick - Brandon McCormick On Behalf of: Carol Chinn, Florida Municipal Power Agency, 6, 4, 3, 5; Chris Gowder, Florida Municipal Power Agency, 6, 4, 3, 5; Joe McKinney, Florida Municipal Power Agency, 6, 4, 3, 5; Ken Simmons, Gainesville Regional Utilities, 1, 3, 5; Randy Hahn, Ocala Utility Services, 3; Richard Montgomery, Florida Municipal Power Agency, 6, 4, 3, 5; Tom Reedy, Florida Municipal Power Pool, 6; - Brandon McCormick, Group Name FMPPA	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
FMPPA believes the overall approach can be a cost effective manner to meet the reliability objectives, provided that the scope of activities for each involved functional entity is made abundantly clear so that unnecessary or duplicative work is not required. We believe additional changes, as suggested above, are needed to reach that point.	
Likes 0	
Dislikes 0	
<b>Response</b>	
John Merrell - Tacoma Public Utilities (Tacoma, WA) - 1	

Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Ginette Lacasse - Seattle City Light - 1,3,4,5,6 - WECC, Group Name Seattle City Light Ballot Body</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Robert Blackney - Edison Electric Institute - 1,3,5,6 - WECC</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Michelle Amarantos - APS - Arizona Public Service Co. - 1</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	

Dislikes 0

**Response**

**Amy Casuscelli - Amy Casuscelli On Behalf of: Michael Ibold, Xcel Energy, Inc., 3, 1, 5; - Amy Casuscelli**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Steven Powell - Trans Bay Cable LLC - NA - Not Applicable - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Neil Swearingen - Salt River Project - 1,3,5,6 - WECC**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Michael Cruz-Montes - CenterPoint Energy Houston Electric, LLC - 1 - Texas RE**

**Answer** Yes

<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Faz Kasraie - Faz Kasraie On Behalf of: Mike Haynes, Seattle City Light, 1, 4, 5, 6, 3; - Faz Kasraie</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Scott Downey - Peak Reliability - 1</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Julie Hall - Entergy - 6</b>	
<b>Answer</b>	Yes
<b>Document Name</b>	
<b>Comment</b>	
Likes 0	
Dislikes 0	

**Response**

**Sarah Gasienica - NiSource - Northern Indiana Public Service Co. - 5**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Terri Pyle - OGE Energy - Oklahoma Gas and Electric Co. - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Quintin Lee - Eversource Energy - 1, Group Name Eversource Group**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**sean erickson - Western Area Power Administration - 1**

**Answer** Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP RE, Group Name** SPP Standards Review Group

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Dennis Chastain - Tennessee Valley Authority - 1,3,5,6 - SERC, Group Name** Tennessee Valley Authority

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**Ruida Shu - Northeast Power Coordinating Council - 1,2,3,4,5,6,7,8,9,10 - NPCC, Group Name** RSC no Dominion NextERA Con-Ed

**Answer**

Yes

**Document Name**

**Comment**

Likes 0

Dislikes 0

**Response**

**James Grimshaw - CPS Energy - 3**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Douglas Webb - Douglas Webb On Behalf of: Harold Wyble, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; James McBee, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; Jennifer Flandermeyer, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; John Carlson, Great Plains Energy - Kansas City Power and Light Co., 5, 1, 3, 6; - Douglas Webb**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Gladys DeLaO - CPS Energy - 1**

Answer Yes

Document Name

Comment

Likes 0

Dislikes 0

Response

**Joe Tarantino - Joe Tarantino On Behalf of: Arthur Starkovich, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Beth Tincher, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Jamie Cutlip, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Kevin Smith, Balancing Authority of Northern California, 1; Nicole Looney, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; Susan Oto, Sacramento Municipal Utility District, 4, 1, 5, 6, 3; - Joe Tarantino**

Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Michael Jones - National Grid USA - 1</b>	
Answer	Yes
Document Name	
<b>Comment</b>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Gregory Campoli - New York Independent System Operator - 2</b>	
Answer	
Document Name	
<b>Comment</b>	
<p>Some of the proposed requirements, (for examples: Requirement R3, Parts 3.1 in FAC-011-4), could result in unnecessary cost for the responsible entities without any reliability benefits. We urge the SDT to consider adopting our proposed wording changes to achieve a more cost-effective approach to meeting the reliability objectives.</p>	
Likes 0	
Dislikes 0	
<b>Response</b>	
<b>Kristine Ward - Seminole Electric Cooperative, Inc. - 1,3,4,5,6 - FRCC</b>	
Answer	
Document Name	Project 2015-09 Establish and Comm SOL.docx
<b>Comment</b>	

Likes 0

Dislikes 0

**Response**