

Survey Report

Survey Details

Name 2015-03 FAC Periodic Review | FAC-010, FAC-011 & FAC-014

Description

Start Date 5/4/2015

End Date 6/17/2015

Associated Ballots

Survey Questions

1. The PRT is recommending retirement of FAC-010 and has provided justification in the Periodic Review Recommendation. Do you agree that the proposed retirement of FAC-010 is justified and does not create a reliability gap? If you do not agree, or if you agree but have comments or suggestions for the justification please provide your recommendation and explanation.

Yes

No

2. The PRT is recommending initiation of a FAC standards project to revise FAC-011 and FAC-014 and has provided justification in the Periodic Review Recommendations. Do you agree with this proposal? If you do not agree, or if you agree but have comments or suggestions for the justification please explain your recommendation.

Yes

No

3. The PRT is recommending that the proposed FAC standards project develop revisions to the definition of System Operating Limit and develop a new defined term for SOL Exceedance. Justification is provided in FAC-011 and FAC-014 Periodic Review Recommendations and supporting white paper. Do you agree with this recommendation? If you do not agree, or if you agree but have comments or suggestions for the justification please provide your recommendation and explanation.

Yes

No

4. Provide any additional comments for the PRT to consider that were not addressed in the preceding questions, if desired.

Responses By Question

1. The PRT is recommending retirement of FAC-010 and has provided justification in the Periodic Review Recommendation. Do you agree that the proposed retirement of FAC-010 is justified and does not create a reliability gap? If you do not agree, or if you agree but have comments or suggestions for the justification please provide your recommendation and explanation.

John Fontenot - Bryan Texas Utilities - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Robert Hirschak - Cleco Corporation - 6 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Nick Vtyurin - Manitoba Hydro - 1,3,5,6 - MRO

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Emily Rousseau - MRO - 1,2,3,4,5,6 - MRO

Group Information

Group Name: MRO-NERC Standards Review Forum (NSRF)

Group Member Name	Entity	Region	Segments
Joe Depoorter	Madison Gas & Electric	MRO	3,4,5,6
Amy Casucelli	Xcel Energy	MRO	1,3,5,6
Chuck Lawrence	American Transmission Company	MRO	1
Chuck Wicklund	Otter Tail Power Company	MRO	1,3,5
Theresa Allard	Minnkota Power Cooperative, Inc	MRO	1,3,5,6
Dave Rudolph	Basin Electric Power Cooperative	MRO	1,3,5,6
Kayleigh Wilkerson	Lincoln Electric System	MRO	1,3,5,6
Jodi Jenson	Western Area Power Administration	MRO	1,6
Larry Heckert	Alliant Energy	MRO	4
Mahmood Safi	Omaha Public Utility District	MRO	1,3,5,6
Marie Knox	Midwest ISO Inc.	MRO	2
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Randi Nyholm	Minnesota Power	MRO	1,5
Scott Nickels	Rochester Public Utilities	MRO	4
Terry Harbour	MidAmerican Energy Company	MRO	1,3,5,6
Tom Breene	Wisconsin Public Service Corporation	MRO	3,4,5,6
Tony Eddleman	Nebraska Public Power District	MRO	1,3,5

Voter Information

Voter	Segment
Emily Rousseau	1,2,3,4,5,6
Entity	Region(s)
MRO	MRO

Selected Answer: No

Answer Comment:

The NSRF agrees with the retirement of R2 and R3 (except the IROL criteria in R3.6) of FAC-010-3 standard in light of R2, R3 and R4 in the new TPL-001-4

standard. The NSRF also agrees with the retirement of R5, which NERC has already approved. However, The NSRF believes that the retirement of R1 and R4 would create partial reliability gaps for the four types of SOLs – Facility Ratings, Voltage Limits, Transient Stability Limits and Voltage Stability Limits, as noted below.

Facility Ratings: The NSRF acknowledges that the Facility Ratings methodology part of R1.1 of FAC-010-3 (develop a methodology for SOLs used in the planning horizon) is covered by R1, R2, and R3 of FAC-008-3. R4 of FAC-010-3 (issue the SOL methodology to applicable entities) is covered by R4 of FAC-008-3.

Voltage Limits: The NSRF recognizes that the Voltage Limits methodology part of R1.1 of FAC-010-3 may be viewed as covered by R5 of TPL-001-4 (have voltage limit criteria). However, no TPL-001-4 requirement requires including Voltage Limits methodology/criteria in the Planning Assessment, which must be provided to applicable entities.

Transient Stability Limits: No requirement in any existing standard is known that requires having a Transient Stability Limits methodology or providing the methodology to any applicable entities. During the webinar, the PRT indicated a lack of value to retaining the FAC-010-3 standard. However, we believe the reliability gap in this area created by retiring FAC-010-3 is significant. There must be clarity on how needed SOLs and IROLs can be adequately identified and represented in the Planning Horizon analyses of multiple parties. The FAC-010-3 standard results in clearly defined and consistently applied SOLs and IROLs in the Planning Horizon.

Voltage Stability Limits: The NSRF recognizes that the Voltage Stability Limits methodology part of R1.1 of FAC-010-3 may be viewed as covered by R6 of TPL-001-4 (document criteria or methodology for voltage instability). R4 of FAC-010-3 may be covered by R6 of TPL-001-4 (include criteria or methodology in the Planning Assessment).

FAC-010-3_R1.2: No requirement in any existing standard is known to require that SOL for a BES element to be the most limiting applicable Rating/Limit.

FAC-010-3_R1.3: No requirement in any existing standard is known to require having criteria or methodology for identifying the subset of SOLs that are classified as IROLs. The R1.3 should not be retired without considering the impact on existing NERC reliability standards (e.g. CIP-002-5, CIP-014-1, and PRC-002-2) that have requirements, which use planning horizon IROLs.

The NSRF proposes the concept of establishing a FAC-010-4 standard, but modifying it to be a “System Planning Limits” standard and move the existing planning horizon SOL requirements out of the FAC-014-2 standard and into a single standard for SPLs (see response to question #3 for our concerns with the proposed System Operating Limits definitions leading to this proposal). Having SPL terminology would readily differentiate operating horizon System Operating Limits and planning horizon System Planning Limits. Moving the planning horizon

requirements into a FAC-010-4 standard would eliminate having planning horizon requirements mixed together with operating horizon requirements in a FAC-014-3 standard (especially those in R5).

If the concept of "System Planning Limits" is accepted, then definitions would need to be establishing the terms, "System Planning Limits" (SPLs) and "Interconnection Reliability Planning Limits" (IRPLs).

Document Name:

Likes: 0

Dislikes: 0

Jennifer Losacco - NextEra Energy - Florida Power and Light Co. - 1 - FRCC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

David Bueche - CenterPoint Energy Houston Electric, LLC - NA - Not Applicable - TRE

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Thomas Foltz - AEP - 5 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Si Truc Phan - Hydro-Quebec TransEnergie - 1 - NPCC

Selected Answer: Yes

Answer Comment:

HQT would like to thank the review team members for their effort and agrees with the proposal to retire FAC-010 without introducing any reliability gap. Having an SOL methodology for the planning horizon is neither practical nor an improvement to reliability. TPL standards already ensure reliability for the planning horizon with some considerations of operating conditions. FAC-010 is not only redundant with TPL standards, but with FAC-011. Dealing with both FAC-010 and FAC-011, applicable to different entities, is extremely confusing.

Document Name:

Likes: 0

Dislikes: 0

Alshare Hughes - Luminant - Luminant Generation Company LLC - 5,6,7 - TRE

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Randi Heise - Dominion - Dominion Resources, Inc. - 5 -

Group Information

Group Name: Dominion - RCS

Group Member Name	Entity	Region	Segments
Larry Nash	Dominion Virginia Power	SERC	1
Louis Slade	Dominion Resources, Inc.	SERC	6
Connie Lowe	Dominion Resources, Inc.	RFC	3
Randi Heise	Dominion Resources, Inc,	NPCC	5

Voter Information

Voter	Segment
Randi Heise	5

Entity	Region(s)
Dominion - Dominion Resources, Inc.	

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Tammy Porter - Oncor Electric Delivery - 1 - TRE

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Pusztai - American Transmission Company, LLC - 1 -

Selected Answer: No

Answer Comment:

ATC agrees with the retirement of R2 and R3 (except the IROL criteria in R3.6) of FAC-010-3 standard in light of R2, R3 and R4 in the new TPL-001-4 standard. ATC also agrees with the retirement of R5, which NERC has already approved. However, ***ATC believes that the retirement of R1 and R4 would create partial reliability gaps for the four types of SOLs – Facility Ratings, Voltage Limits, Transient Stability Limits and Voltage Stability Limits, as noted below. Therefore, the recommendation by the PRT to retire FAC-010 is not justified.***

- **Facility Ratings:** ATC acknowledges that the Facility Ratings methodology part of R1.1 of FAC-010-3 (develop a methodology for SOLs used in the planning horizon) is covered by R1, R2, and R3 of FAC-008-3. R4 of FAC-010-3 (issue the SOL methodology to applicable entities) is covered by R4 of FAC-008-3.

- **Voltage Limits:** ATC recognizes that the Voltage Limits methodology part of R1.1 of FAC-010-3 may be viewed as covered by R5 of TPL-001-4 (have voltage limit criteria). However, no TPL-001-4 requirement requires including Voltage Limits methodology/criteria in the Planning Assessment, which must be provided to applicable entities.

- **Transient Stability Limits:** No requirement in any existing standard is known that requires having a Transient Stability Limits methodology or providing the methodology to any applicable entities. During the webinar, the PRT indicated a lack of value to retaining the FAC-010-3 standard. However, we believe the

reliability gap in this area created by retiring FAC-010-3 is significant. There must be clarity on how needed SOLs and IROLs can be adequately identified and represented in the Planning Horizon analyses of multiple parties. The FAC-010-3 standard results in clearly defined and consistently applied SOLs and IROLs in the Planning Horizon.

- **Voltage Stability Limits:** ATC recognizes that the Voltage Stability Limits methodology part of R1.1 of FAC-010-3 may be viewed as covered by R6 of TPL-001-4 (document criteria or methodology for voltage instability). R4 of FAC-010-3 may be covered by R6 of TPL-001-4 (include criteria or methodology in the Planning Assessment).

Furthermore, ATC has the following comments for consideration by the PRT if FAC-010 is retired:

- **FAC-010-3_R1.2:** No requirement in any existing standard is known to require that SOL for a BES element to be the most limiting applicable Rating/Limit.
- **FAC-010-3_R1.3:** No requirement in any existing standard is known to require having criteria or methodology for identifying the subset of SOLs that are classified as IROLs. The R1.3 should not be retired without considering the impact on existing NERC reliability standards (e.g. CIP-002-5, CIP-014-1, IRO-009-2, and PRC-002-2) that have requirements, which use planning horizon IROLs.

ATC proposes the concept of establishing a FAC-010-4 standard, thus modifying it to be a “System Planning Limits” (SPLs) standard and move the existing planning horizon SOL requirements out of the FAC-014-2 standard and into a single standard for SPLs. (see response to question #3 for our concerns with the proposed System Operating Limits definitions leading to this proposal). Having SPL terminology would readily differentiate operating horizon System Operating Limits and planning horizon System Planning Limits. Moving the planning horizon requirements into a FAC-010-4 standard would eliminate having planning horizon requirements mixed together and causing confusion with operating horizon requirements in a FAC-014-3 standard (especially those in R5).

If the concept of “System Planning Limits” is accepted, then definitions would need to be established for the terms, “System Planning Limits” (SPLs) and

“Interconnection Reliability Planning Limits” (IRPLs).

Document Name:

Likes: 0

Dislikes: 0

Jared Shakespeare - Peak Reliability - 1 -

Selected Answer: Yes

Answer Comment:

Peak Reliability agrees with this recommendation assuming the recommendation of addressing the transferring and sharing of reliability information from PCs to RCs and TOPs in FAC-014 is implemented.

Document Name:

Likes: 0

Dislikes: 0

Richard Vine - California ISO - 2 -

Selected Answer: No

Answer Comment:

The ISO's Planning Department has identified an issue with retirement of FAC-010-3. Sections 1.1.5 and 1.1.6 on page 8 (Regional Differences) are critical to our planning studies and currently are not covered under any WECC standards. WECC retired the relevant sections from its standard under the premise that it was covered in FAC-010. The retirement of Sections 1.1.5 and 1.1.6 will be a considerable relaxation of WECC planning standards and will allow for substantially increased WECC Path Ratings. Prior to the retirement of Sections 1.1.5 and 1.1.6, a process for increasing WECC Path Ratings triggered by this retirement needs to be established to ensure these ratings are coordinated, and reliability is maintained.

Document Name:

Likes: 0

Dislikes: 0

Molly Devine - IDACORP - Idaho Power Company - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Gallo - Austin Energy - 6 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

RoLynda Shumpert - SCANA - South Carolina Electric and Gas Co. - 1,3,5,6 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

christina bigelow - Electric Reliability Council of Texas, Inc. - 2 -

Selected Answer: Yes

Answer Comment: ERCOT has signed onto and supports the comments to be submitted by the ISO/RTO Council Standards Review Committee.

Document Name:

Likes: 0

Dislikes: 0

Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RFC

Group Information

Group Name: Duke Energy

Group Member Name	Entity	Region	Segments
Doug Hils	Duke Energy	RFC	1
Lee Schuster	Duke Energy	FRCC	3
Dale Goodwine	Duke Energy	SERC	5
Greg Cecil	Duke Energy	RFC	6

Voter Information

Voter	Segment
Colby Bellville	1,3,5,6
Entity	Region(s)
Duke Energy	FRCC,SERC,RFC

Selected Answer: Yes

Answer Comment:

Duke Energy requests further clarification from the PRT Team on the transfer of responsibilities from R4 of FAC-010-2.1 to other standards, possibly TPL-001-4. Currently, Requirement 4 of FAC-010-2.1 requires the Planning Authority to issue its SOL Methodology to adjacent PA(s), RC(s), TOP(s) and TP(s) in the Planning Authority Area. Is it the PRT's feeling that providing this methodology to others, the RC specifically, is not necessary, and would not create the possibility of a gap in reliability? We fail to clearly see if this responsibility is already covered in TPL-001-4, as it does not explicitly discuss the issuance of an SOL Methodology to the RC or any other functional entity.

Document Name:

Likes: 0

Dislikes: 0

Joel Wise - Tennessee Valley Authority - 1,3,5,6 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Michael Shaw - Lower Colorado River Authority - 6 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5
Michael Shaw	LCRA	TRE	6

Voter Information

Voter	Segment
Michael Shaw	6
Entity	Region(s)
Lower Colorado River Authority	

Selected Answer:

Answer Comment:

Document Name: 2015-03_CommentForm.docx

Likes: 0

Dislikes: 0

Kaleb Brimhall - Colorado Springs Utilities - 5 -

Group Information

Group Name: Colorado Springs Utilities

Group Member Name	Entity	Region	Segments
Shawna Speer	Colorado Springs Utilities	WECC	1
Charlie Morgan	Colorado Springs Utilities	WECC	3
Shannon Fair	Colorado Springs Utilities	WECC	6
Kaleb Brimhall	Colorado Springs Utilities	WECC	5

Voter Information

Voter	Segment
Kaleb Brimhall	5
Entity	Region(s)
Colorado Springs Utilities	

Selected Answer: Yes

Answer Comment:

CSU agrees and CSU currently cites the RC Methodology and uses its TPL studies as evidence of compliance with FAC-010 which falls in line with the recommendations of the PRT.

If FAC-010 goes away then is it correct to assume that the PC will no longer establish SOLs but will utilize TPL-001-4 to correctly plan the system and SOLs will be left to the operations horizon?

Document Name:

Likes: 0

Dislikes: 0

Lee Pedowicz - Northeast Power Coordinating Council - 10 - NPCC

Group Information

Group Name: NPCC--Project 2015-03

Group Member Name	Entity	Region	Segments
Alan Adamson	New York State Reliability Council, LLC	NPCC	10
David Burke	Orange and Rockland Utilities Inc.	NPCC	3
Greg Campoli	New York Independent System Operator	NPCC	2
Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
Kelly Dash	Consolidated Edison Co. of New York, Inc.	NPCC	1
Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
Mark Kenny	Northeast Utilities	NPCC	1
Helen Lainis	Independent Electricity System Operator	NPCC	2
Alan MacNaughton	New Brunswick Power Corporation	NPCC	9
Paul Malozewski	Hydro One Networks Inc.	NPCC	1
Bruce Metruck	New York Power Authority	NPCC	6
Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
Robert Pellegrini	The United Illuminating Company	NPCC	1
Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
Brian Robinson	Utility Services	NPCC	8
Wayne Sipperly	New York Power Authority	NPCC	5
Edward Bedder	Orange and Rockland Utilities Inc.	NPCC	1
Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
Michael Jones	National Grid	NPCC	1
Brian Shanahan	National Grid	NPCC	1
Michael Forte	Consolidated Edison Co. of New York, Inc.	NPCC	1
Glen Smith	Entergy Services, Inc.	NPCC	5
Brian O'Boyle	Consolidated Edison Co. of New York, Inc.	NPCC	8

RuiDa Shu	Northeast Power Coordinating Council	NPCC	10
Connie Lowe	Dominion Resources Services, Inc.	NPCC	5
Kathleen Goodman	ISO - New England	NPCC	2

Voter Information

Voter	Segment
Lee Pedowicz	10
Entity	Region(s)
Northeast Power Coordinating Council	NPCC

Selected Answer: Yes

Answer Comment:

We concur with the proposed retirement of FAC-010, and that its retirement will not introduce any reliability gap. Having an SOL methodology for the planning horizon is neither practical nor an improvement to reliability. TPL standards already ensure reliability for the planning horizon with some considerations of operating conditions. FAC-010 is not only redundant with TPL standards, but with FAC-011. Dealing with both FAC-010 and FAC-011, applicable to different entities, is extremely confusing.

Document Name:

Likes: 0

Dislikes: 0

Anthony Jablonski - ReliabilityFirst - 10 -

Selected Answer: Yes

Answer Comment:

1. ReliabilityFirst agrees with the PRT recommendation to retire FAC-010-3 BES planning is covered under the new TPL-001-4 Standard which provides comprehensive requirements for a variety of contingencies.

Document Name:

Likes: 0

Dislikes: 0

Steven Rueckert - Western Electricity Coordinating Council - 10 -

Selected Answer: No

Answer Comment:

The purpose of FAC-010 is for the Planning Authority (Planning Coordinator) to have a documented SOL methodology that will be used for determining SOLs. The purpose of TP:-001-4 is for the Planning Authority and Transmission Planner to conduct assessments to ensure that the system performance meets performance criteria and if it does not, to develop corrective action plans so that it will. TPL0991-4 does not require a methodology nor does it reference SOLs. Won't retirement of FAC-014 result in a reliability gap wherein there is no requirement for an SOL methodology to be followed in developing SOLs?

Document Name:

Likes: 0

Dislikes: 0

Ben Engelby - ACES Power Marketing - 6 -

Group Information

Group Name: ACES Standards Collaborators - FAC Project

Group Member Name	Entity	Region	Segments
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Shari Heino	Brazos Electric Power Cooperative, Inc.	TRE	1,5
Kevin Lyons	Central Iowa Power Cooperative	MRO	1
Amber Skillern	East Kentucky Power Cooperative	SERC	1,3
Ginger Mercier	Prairie Power Inc.	SERC	1,3

Voter Information

Voter **Segment**

Ben Engelby 6

Entity **Region(s)**

ACES Power Marketing

Selected Answer: Yes

Answer Comment:

We agree with the review team's recommendation to retire the entire standard because there is little reliability benefit to have SOLs in the planning horizon. No gap exists now that TPL-001-4 is approved.

Document Name:

Likes: 0

Dislikes: 0

Gregory Campoli - New York Independent System Operator - 2 -

Group Information

Group Name: ISO/RTO Standards Review Committee

Group Member Name	Entity	Region	Segments
Gregory Campoli	NYISO	NPCC	2
Ben Li	IESO	NPCC	2
Kathleen Goodman	ISONO	NPCC	2
Mark Holman	PJM	NPCC	2
Charles Yeung	SPP	SPP	2
Terry Bilke	MISO	MRO	2
Christina Bigelow	ERCOT	TRE	2
Ali Miremadi	CAISO	WECC	2

Voter Information

Voter	Segment
Gregory Campoli	2
Entity	Region(s)
New York Independent System Operator	

Selected Answer: Yes

Answer Comment: note: CAISO did not support/join this response to Q1

Document Name:

Likes: 0

Dislikes: 0

Leonard Kula - Independent Electricity System Operator - 2 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

David Jendras - Ameren - Ameren Services - 3 -

Selected Answer: Yes

Answer Comment:

In our opinion, FAC-010 is no longer necessary due to the establishment of standard TPL-001-4.

Document Name:

Likes: 0

Dislikes: 0

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Teresa Czyz - Georgia Transmission Corporation - 1 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Jason Snodgrass - Georgia Transmission Corporation - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP

Group Information

Group Name: SPP Standards Review Group

Group Member Name	Entity	Region	Segments
Shannon Mickens	Southwest Power Pool Inc.	SPP	2
Jonathan Hayes	Southwest Power Pool Inc	SPP	2
Gary Cox	Southwestern Power Administration	SPP	1
James Nail	City of Independence, Missouri	SPP	3,5
Stephanie Johnson	Westar Energy, Inc	SPP	1,3,5,6
Jason Smith	Southwest Power Pool Inc	SPP	2
Jeff Knottek	City Utilities of Springfield	SPP	1,4
Greg McAuley	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
Bo Jones	Westar Energy, Inc	SPP	1,3,5,6
Tiffany Lake	Westar Energy, Inc	SPP	1,3,5,6
Sing Tay	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
J.Scott Williams	City Utilities of Springfield	SPP	1,4
William Wilson	Oklahoma Gas and Electric Co.	SPP	1,3,5,6

Voter Information

Voter	Segment
Shannon Mickens	2
Entity	Region(s)
Southwest Power Pool, Inc. (RTO)	SPP

Selected Answer: Yes

Answer Comment:

We agree with the Periodic Review Team's recommendation to retire FAC-010-3. Additionally, we suggest the PRT to review the Rules of Procedure (RoP) and the Glossary of Terms as well as coordinating efforts with the Alignment of Terms Standards Drafting Team (Project 2015-04) to help ensure any defined term changes will properly align with these particular documents and other documentation that may utilize this term and are applicable to the SOL process. As NERC has previously stated in their outreach process, the goal is to produce a Standards Development Process that is productive and efficient. With that being said, we feel the coordination of the two drafting teams will achieve that goal.

Document Name:

Likes: 0

Dislikes: 0

Dixie Wells - Lower Colorado River Authority - 5 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Michael Shaw	LCRA	TRE	6
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5

Voter Information

Voter **Segment**

Dixie Wells 5

Entity **Region(s)**

Lower Colorado River Authority

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Rachel Coyne - Texas Reliability Entity, Inc. - 10 -

Selected Answer: No

Answer Comment:

Texas RE does not agree with the retirement of FAC-010. If FAC-010 is eliminated, there would be no requirement to create a methodology to be used in TPL-001-4. Without a methodology indicating expectations, an entity might not know if it had and SOL or IROL or if it exceeded an SOL or IROL. Without a methodology that supports what an SOL or IROL is, planners would not be able to coordinate efforts and could lead to inconsistent planning. If entities do not have consistent limits and know how the limits are derived, it would not be able to adequately plan well enough for operations and for the future. Limits might be arbitrarily decided upon and inconsistent. From a reliability and compliance perspective, issues are less likely to occur if entities have a plan. Additionally, without a requirement to have a SOL Methodology, entities may not be prepared for an event and thus runs the risk of losing all the load in an area instead of some of the load in the area. Texas RE agrees that some SOLs are determined in the real-time or near real-time, but some SOLs are also determined in the planning horizon. If FAC-010 were eliminated, entities might not determine SOLs in the planning horizon.

Texas RE recommends considering combining FAC-010 and FAC-011 into a single standard. The process or methodology to determine SOLs should be the same for both the operations and planning horizon. Obviously, the actual limit for a specific element used in an assessment may be different between the operations and planning horizons, but the methodology on how the limit is determined should be consistent between planning and operations. This approach has worked in our region, as ERCOT, acting as both the RC and PC, issued a combined FAC methodology document that covers both the operations and planning horizons.

Document Name:

Likes: 0

Dislikes: 0

Gene Henneberg - NV Energy - Sierra Pacific Power Co. - NA - Not Applicable - WECC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Brad Ryan - Berkshire Hathaway - PacifiCorp - 6 - WECC

Selected Answer: Yes

Answer Comment:

Retirement of FAC-010 is acceptable, provided:

- a. The SOL methodology described in FAC-011 and FAC-014 covers all reliability concerns of the TOPs and RCs.
- b. There is an adequate mechanism for the Reliability Coordinator to address concerns with the SOL Methodology raised by TOPs, and documented (i.e. written) responses are provide by the RC to the TOPs addressing their concerns.
- c. There is an adequate mechanism for the Reliability Coordinate to revise the SOL Methodology, when any entity, TOP or RC, raises an issue. The issue should be fully addressed to the entities concern.

Document Name:

Likes: 0

Dislikes: 0

2. The PRT is recommending initiation of a FAC standards project to revise FAC-011 and FAC-014 and has provided justification in the Periodic Review Recommendations. Do you agree with this proposal? If you do not agree, or if you agree but have comments or suggestions for the justification please explain your recommendation.

John Fontenot - Bryan Texas Utilities - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Robert Hirschak - Cleco Corporation - 6 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Nick Vtyurin - Manitoba Hydro - 1,3,5,6 - MRO

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Emily Rousseau - MRO - 1,2,3,4,5,6 - MRO

Group Information

Group Name: MRO-NERC Standards Review Forum (NSRF)

Group Member Name	Entity	Region	Segments
Joe Depoorter	Madison Gas & Electric	MRO	3,4,5,6
Amy Casucelli	Xcel Energy	MRO	1,3,5,6
Chuck Lawrence	American Transmission Company	MRO	1
Chuck Wicklund	Otter Tail Power Company	MRO	1,3,5
Theresa Allard	Minnkota Power Cooperative, Inc	MRO	1,3,5,6
Dave Rudolph	Basin Electric Power Cooperative	MRO	1,3,5,6
Kayleigh Wilkerson	Lincoln Electric System	MRO	1,3,5,6
Jodi Jenson	Western Area Power Administration	MRO	1,6
Larry Heckert	Alliant Energy	MRO	4
Mahmood Safi	Omaha Public Utility District	MRO	1,3,5,6
Marie Knox	Midwest ISO Inc.	MRO	2
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Randi Nyholm	Minnesota Power	MRO	1,5
Scott Nickels	Rochester Public Utilities	MRO	4
Terry Harbour	MidAmerican Energy Company	MRO	1,3,5,6
Tom Breene	Wisconsin Public Service Corporation	MRO	3,4,5,6

Tony Eddleman	Nebraska Public Power District	MRO	1,3,5
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Voter Information

Voter	Segment
Emily Rousseau	1,2,3,4,5,6
Entity	Region(s)
MRO	MRO

Selected Answer: Yes

Answer Comment:

Along the same lines, The NSRF proposes the concept of at FAC-011 and the operating horizon requirements in FAC-014-1 be consolidated in to a FAC-011-3 standard titled, "System Operating Limits for the Operating Horizon", in order to have the operating horizon SOL requirements in one standard, rather than having some of these requirements mixed together with planning horizon requirements in the FAC-014 standard (especially R5).

Document Name:

Likes: 0

Dislikes: 0

Jennifer Losacco - NextEra Energy - Florida Power and Light Co. - 1 - FRCC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

David Bueche - CenterPoint Energy Houston Electric, LLC - NA - Not Applicable - TRE

Selected Answer: No

Answer Comment:

While CenterPoint Energy agrees with the majority of recommendations for revisions to FAC-011 and FAC-014, the Company does not feel it is necessary for FAC Standards to address normal and emergency equipment voltage limits established in operations. As mentioned in the FAC-011 PRR, a process already exists for Transmission Operators to establish voltage schedules. These voltage schedules are based on IEEE documentation, historical system performance, as well as other criteria including best utility practices. The current SOL definition speaks to System Voltage Limits as one of the operating criteria, not individual equipment voltage limits. CenterPoint Energy feels this recommendation could lead to undue compliance and documentation burdens without providing a greater reliability benefit.

Document Name:

Likes: 0

Dislikes: 0

Thomas Foltz - AEP - 5 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Si Truc Phan - Hydro-Quebec TransEnergie - 1 - NPCC

Selected Answer: Yes

Answer Comment:

Considering the approach of other NERC standard projects to reduce the number of standards and the review team recommendations, HQT proposes that the review team recommend merging FAC-011 and FAC-014 into one standard to address every aspect of SOLs covered in the current FAC-011 and FAC-014. HQT highly supports the effort made to narrow the gap between the planning and operating horizon through a revised FAC-011 standard aligned with the TPL-001-4 table structure.

Document Name:

Likes: 0

Dislikes: 0

Alshare Hughes - Luminant - Luminant Generation Company LLC - 5,6,7 - TRE

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Randi Heise - Dominion - Dominion Resources, Inc. - 5 -

Group Information

Group Name: Dominion - RCS

Group Member Name	Entity	Region	Segments
Larry Nash	Dominion Virginia Power	SERC	1
Louis Slade	Dominion Resources, Inc.	SERC	6
Connie Lowe	Dominion Resources, Inc.	RFC	3
Randi Heise	Dominion Resources, Inc,	NPCC	5

Voter Information

Voter Segment

Randi Heise 5

Entity Region(s)

Dominion - Dominion Resources, Inc.

Selected Answer: Yes

Answer Comment:

Dominion also notes that currently FAC-011-3 and FAC-014-2 donot have a corresponding Measure for each Requirement. Also, FAC-011-3 includes Measures for R1 and R2 whereas there are no Measures for R4 or R5 and FAC-014-2 includes Measures for R1, R2 and R3 whereas there are no Measures for R5 or R6.

Document Name:

Likes: 0

Dislikes: 0

Tammy Porter - Oncor Electric Delivery - 1 - TRE

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Pusztai - American Transmission Company, LLC - 1 -

Selected Answer: No

Answer Comment:

Along the same lines as proposed in ATC's responses to Question #1, **ATC proposes the concept of having a Standard specifically for operating horizon SOLs. In doing so, the *operating horizon requirements in FAC-014-1 should be moved into a FAC-011-3 standard entitled, "System Operating Limits for the Operating Horizon"*.** Thereby, the operating horizon SOL requirements are in one standard rather than having some of these requirements mixed together with planning horizon requirements in the FAC-014 standard (especially R5).

Document Name:

Likes: 0

Dislikes: 0

Jared Shakespeare - Peak Reliability - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Richard Vine - California ISO - 2 -

Selected Answer:

Answer Comment:

The California ISO supports comments provided by the ISO/RTO Standards Review Committee

Document Name:

Likes: 0

Dislikes: 0

Molly Devine - IDACORP - Idaho Power Company - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Gallo - Austin Energy - 6 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

RoLynda Shumpert - SCANA - South Carolina Electric and Gas Co. - 1,3,5,6 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

christina bigelow - Electric Reliability Council of Texas, Inc. - 2 -

Selected Answer: Yes

Answer Comment: ERCOT has signed onto and supports the comments to be submitted by the ISO/RTO Council Standards Review Committee.

Document Name:

Likes: 0

Dislikes: 0

Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RFC

Group Information

Group Name: Duke Energy

Group Member Name	Entity	Region	Segments
Doug Hils	Duke Energy	RFC	1
Lee Schuster	Duke Energy	FRCC	3
Dale Goodwine	Duke Energy	SERC	5
Greg Cecil	Duke Energy	RFC	6

Voter Information

Voter	Segment
Colby Bellville	1,3,5,6
Entity	Region(s)
Duke Energy	FRCC,SERC,RFC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Joel Wise - Tennessee Valley Authority - 1,3,5,6 - SERC

Selected Answer: No

Answer Comment:

For FAC-011-3, TVA recommends that the IROL definition not be revised to address the extent and degree of instability that warrants an IROL. Having the RC determine and document this in the methodology is the best approach.

Document Name:

Likes: 0

Dislikes: 0

Michael Shaw - Lower Colorado River Authority - 6 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5
Michael Shaw	LCRA	TRE	6

Voter Information

Voter **Segment**

Michael Shaw 6

Entity **Region(s)**

Lower Colorado River Authority

Selected Answer:

Answer Comment:

Document Name: 2015-03_CommentForm.docx

Likes: 0

Dislikes: 0

Kaleb Brimhall - Colorado Springs Utilities - 5 -

Group Information

Group Name: Colorado Springs Utilities

Group Member Name	Entity	Region	Segments
Shawna Speer	Colorado Springs Utilities	WECC	1
Charlie Morgan	Colorado Springs Utilities	WECC	3
Shannon Fair	Colorado Springs Utilities	WECC	6
Kaleb Brimhall	Colorado Springs Utilities	WECC	5

Voter Information

Voter **Segment**

Kaleb Brimhall 5

Entity **Region(s)**

Colorado Springs Utilities

Selected Answer: Yes

Answer Comment: CSU agrees that if revisions are made correctly that enhancements can be achieved.

Document Name:

Likes: 0

Dislikes: 0

Lee Pedowicz - Northeast Power Coordinating Council - 10 - NPCC

Group Information

Group Name: NPCC--Project 2015-03

Group Member Name	Entity	Region	Segments
Alan Adamson	New York State Reliability Council, LLC	NPCC	10

David Burke	Orange and Rockland Utilities Inc.	NPCC	3
Greg Campoli	New York Independent System Operator	NPCC	2
Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
Kelly Dash	Consolidated Edison Co. of New York, Inc.	NPCC	1
Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
Mark Kenny	Northeast Utilities	NPCC	1
Helen Lainis	Independent Electricity System Operator	NPCC	2
Alan MacNaughton	New Brunswick Power Corporation	NPCC	9
Paul Malozewski	Hydro One Networks Inc.	NPCC	1
Bruce Metruck	New York Power Authority	NPCC	6
Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
Robert Pellegrini	The United Illuminating Company	NPCC	1
Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
Brian Robinson	Utility Services	NPCC	8
Wayne Sipperly	New York Power Authority	NPCC	5
Edward Bedder	Orange and Rockland Utilities Inc.	NPCC	1
Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
Michael Jones	National Grid	NPCC	1
Brian Shanahan	National Grid	NPCC	1
Michael Forte	Consolidated Edison Co. of New York, Inc.	NPCC	1
Glen Smith	Entergy Services, Inc.	NPCC	5
Brian O'Boyle	Consolidated Edison Co. of New York, Inc.	NPCC	8
RuiDa Shu	Northeast Power Coordinating Council	NPCC	10
Connie Lowe	Dominion Resources Services, Inc.	NPCC	5
Kathleen Goodman	ISO - New England	NPCC	2

Voter Information

Voter	Segment
Lee Pedowicz	10
Entity	Region(s)
Northeast Power Coordinating Council	NPCC

Selected Answer: No

Answer Comment:

Regarding FAC-011:

We agree that some parts in R2 may not fully align with the Purpose, and we agree with the assessed ambiguity in Part R2.3. However, we do not agree with the proposal to include a list of planning events from TPL-001-4 in Part R3.3 that is to be considered in operations. Since the planning studies are performed under a specific set of system conditions, there is no assurance that the power system could be operated to respect a particular planning event under all the possible conditions that are encountered in operations.

Furthermore, if a list of multiple events is included in Part R3.3, then FAC-014-2 R6 would no longer be required. The proposal to revise FAC-014-2 indicated suggested changes to R6, but not the deletion of R6. This proposal is not consistent with the proposed scope of update to R6 in FAC-014-2. Having the same information in multiple standards allows for multiple compliance violations for the same transgression.

Regarding FAC-014:

We agree with the general direction to revise FAC-014.

We concur with the need to revise R6, so that the reference to TPL-003 is replaced with TPL-001-4, and to clarify which of the planning events in Table 1 are to be considered for this requirement.

Considering the approach of other NERC standard projects to reduce the number of standards and the review team recommendations, we propose that the review team recommend merging FAC-011 and FAC-014 into one standard. This will allow the aspects of the SOLs covered in the current FAC-011 and FAC-014 to be addressed. We are supportive of the effort being made, and support the effort made to narrow the gap between the planning and operating horizon through a revised FAC-011 standard aligned with the way TPL-001-4 Table 1 defines acceptable performance requirements for the planning horizon.

Document Name:

Likes: 0

Dislikes: 0

Anthony Jablonski - ReliabilityFirst - 10 -

Selected Answer:

Answer Comment:

ReliabilityFirst provides the following comments for consideration:

1. In regards to the PRT recommending that the FAC-011-03 Standard be revised to allow operation one contingency away from voltage collapse to be acceptable, ReliabilityFirst has concern that there must be clear criteria [\[BW1\]](#) to define and determine the area of collapse, and what area of collapse is acceptable.
2. Within the summary discussion for FAC-011-3 requirement R2 section, the two PRT recommendations appear to be inconsistent. The PRT first recommends that the standards project should consider writing system performance requirements directly into the continent-wide Reliability Standards (i.e., a prescriptive requirement). The PRT then goes on to recommend that there should be a requirement for the RC to determine criteria or have a methodology to identify System instability (i.e., a non-prescriptive requirement). From these two recommendations, it is not clear of what the intent of the PRT is since the two recommendations are conflicting.

Document Name:

Likes: 0

Dislikes: 0

Steven Rueckert - Western Electricity Coordinating Council - 10 -

Selected Answer: No

Answer Comment: See response to Question #3

Document Name:

Likes: 0

Dislikes: 0

Ben Engelby - ACES Power Marketing - 6 -

Group Information

Group Name: ACES Standards Collaborators - FAC Project

Group Member Name	Entity	Region	Segments
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Shari Heino	Brazos Electric Power Cooperative, Inc.	TRE	1,5
Kevin Lyons	Central Iowa Power Cooperative	MRO	1
Amber Skillern	East Kentucky Power Cooperative	SERC	1,3
Ginger Mercier	Prairie Power Inc.	SERC	1,3

Voter Information

Voter **Segment**

Ben Engelby 6

Entity **Region(s)**

ACES Power Marketing

Selected Answer: Yes

Answer Comment:

We agree with the review team's recommendation to revise the FAC-011 and FAC-014 standards and agree with the approach of combining the two standards.

Document Name:

Likes: 0

Dislikes: 0

Gregory Campoli - New York Independent System Operator - 2 -

Group Information

Group Name: ISO/RTO Standards Review Committee

Group Member Name	Entity	Region	Segments
Gregory Campoli	NYISO	NPCC	2
Ben Li	IESO	NPCC	2
Kathleen Goodman	ISONO	NPCC	2
Mark Holman	PJM	NPCC	2
Charles Yeung	SPP	SPP	2
Terry Bilke	MISO	MRO	2
Christina Bigelow	ERCOT	TRE	2
Ali Miremadi	CAISO	WECC	2

Voter Information

Voter	Segment
Gregory Campoli	2
Entity	Region(s)
New York Independent System Operator	

Selected Answer: Yes

Answer Comment:

The SRC supports some revisions to the standards, but will reserve the detailed comments for the posted red line of the standards.

Document Name:

Likes: 0

Dislikes: 0

Leonard Kula - Independent Electricity System Operator - 2 -

Selected Answer: No

Answer Comment:

FAC-011

We agree that some parts in R2 may not fully align with the purpose, and we agree with the assessed ambiguity in R2.3. However, we do not agree with the proposal to include in R3.3 a list of planning events in TPL-001-4 to be considered in operations. Since the planning studies are performed under a confined set of system conditions, there is no assurance that the power system could be operated to respect a particular planning event under all possible conditions to be encountered in operations.

Furthermore, if a list of multiple events is included in R3.3, then FAC-014-2 R6 would not be required anymore, and the proposal to revise FAC-014-2 indicated suggested changes to R6, but not deletion of R6, thus this proposal is not consistent with the proposed scope of update to R6 in FAC-014-2.

FAC-014

We agree with the general direction to revise FAC-014.

We concur with the need to revise R6, so that the reference to TPL-003 is replaced with TPL-001-4, and to clarify which of the planning events in table 1 are considered for this requirement.

Document Name:

Likes: 0

Dislikes: 0

David Jendras - Ameren - Ameren Services - 3 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Selected Answer: Yes

Answer Comment: BPA supports the PRT's recommendation that these standards be revised.

Document Name:

Likes: 0

Dislikes: 0

Teresa Czyz - Georgia Transmission Corporation - 1 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Jason Snodgrass - Georgia Transmission Corporation - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP

Group Information

Group Name: SPP Standards Review Group

Group Member Name	Entity	Region	Segments
Shannon Mickens	Southwest Power Pool Inc.	SPP	2
Jonathan Hayes	Southwest Power Pool Inc	SPP	2
Gary Cox	Southwestern Power Administration	SPP	1
James Nail	City of Independence, Missouri	SPP	3,5
Stephanie Johnson	Westar Energy, Inc	SPP	1,3,5,6
Jason Smith	Southwest Power Pool Inc	SPP	2
Jeff Knottek	City Utilities of Springfield	SPP	1,4
Greg McAuley	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
Bo Jones	Westar Energy, Inc	SPP	1,3,5,6
Tiffany Lake	Westar Energy, Inc	SPP	1,3,5,6
Sing Tay	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
J.Scott Williams	City Utilities of Springfield	SPP	1,4
William Wilson	Oklahoma Gas and Electric Co.	SPP	1,3,5,6

Voter Information

Voter	Segment
Shannon Mickens	2

Entity

Southwest Power Pool, Inc. (RTO)

Region(s)

SPP

Selected Answer: Yes**Answer Comment:**

The review group agrees with the PRT's recommendation in reference to developing requirements associated with FAC-011-3 and FAC-014-2 to providing clarity on determining and communicating each type of SOL(s). Additionally, we would suggest including within the Standard's rationale section clear and concise examples for each type of SOL. We feel this will help provide clarity and close the interpretation gap between the auditor and the industry.

We also suggest that the Standards Committee continue ensuring that there is a good mix of both Planning and Operations individuals on the eventual Standard Drafting Team.

Document Name:**Likes:** 0**Dislikes:** 0

Dixie Wells - Lower Colorado River Authority - 5 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Michael Shaw	LCRA	TRE	6
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5

Voter Information

Voter **Segment**

Dixie Wells 5

Entity **Region(s)**

Lower Colorado River Authority

Selected Answer: Yes

Answer Comment:

FAC-011 and FAC-014 should be revised to clarify that the Transmission Owner is the entity required to provide facility ratings for the facilities that it owns and to clarify the roles of the Reliability Coordinator, Planning Coordinator, Transmission Planner, and Transmission Operator with respect to receiving, communicating, and applying facility ratings to determine and apply an SOL in the planning and operations time horizon.

Document Name:

Likes: 0

Dislikes: 0

Rachel Coyne - Texas Reliability Entity, Inc. - 10 -

Selected Answer: No

Answer Comment:

Texas RE does not agree with the reasoning for a FAC-011 and FAC-014 project.

Texas RE does not agree that the existing requirements and the SOL definition contributes to confusion and a lack of consistency. The PRT provides no evidence or examples of its claims of confusion and inconsistencies. The PRT is trying to promote consistency and lessen confusion but it is unclear why “consistency” in “acceptable system performance requirements” discussed in FAC-011 R2 between Interconnections or even Regions would enable better reliability. Uniformity in BES implementation does not exist between different regions, and usually not even within a region. A uniform list of performance requirements is useful in numerous ways, however, it would be very difficult to capture every risk to reliability in each RC area. The PRT indicates that the “Purpose” and the Requirements should be consistent. In fact they are consistent in terms of what is discussed in R2. In like manner, the methodology must have a targeted result and R2 describes a target. This is not inconsistent.

Texas RE is concerned the proposed definition of an SOL Exceedance provides more confusion than clarification. Texas RE recommends the following in order to provide clarification:

- Define “unacceptable time duration”
- Identify the “highest available Facility Rating”
- Explain the bullet regarding transient or voltage instability. Does the PRT mean that the entire Interconnection must have transient or voltage instability?

Texas RE requests the PRT clarify the difference between Facility Rating exceedance and SOL exceedance as it appears the terms are used interchangeably in the discussion document “System Operating Limit Definition and Exceedance Clarification”. Please clarify whether or not Facility Rating exceedances only apply to power flows and SOL exceedances apply to all 4 potential operating limits.

The dynamic nature of the system changes should be accounted for in the determination of SOLs. If you do not have a limit to compare to actual or post-contingency flows you are in an unknown state which is a reliability concern. The methodology for Operating SOLs should not be different than the Planning SOLs. Planning is done on a very finite set of contingencies (done independently and relatively singular in nature) while operating has to consider what conditions are present (which could be in the neighborhood of N-several hundred). There has never been an issue where an SOL could not be determined (if there was that

should be an “unknown state”.)

Document Name:

Likes: 0

Dislikes: 0

Gene Henneberg - NV Energy - Sierra Pacific Power Co. - NA - Not Applicable - WECC

Selected Answer: Yes

Answer Comment:

My only concern with retiring the FAC-010 and modifying FAC-011 standards is that the recommendation includes retirement of WECC variance E1.1.4 in both standards regarding failure of a RAS-associated circuit breaker to operate when the RAS calls for it to operate. The existing variance probably adds nothing useful to FAC-010, which I have no problem with retiring. The existing variance probably is misplaced in FAC-011, because it really describes a Planning issue, rather than an operating issue.

I recognize that WECC Reliability Subcommittee issued a recent white paper saying that this variance isn't needed because the problem is covered by PRC-012_R1.3 and by TPL-001-4 Table 1, P4 and P5. WECC also has an on-going effort to address these provisions within WECC. But my concern is that PRC-012 and TPL-001-4 standards actually cover less than what was claimed by the WECC RS white paper. For example, PRC-012 does talk about SPS [RAS] single component failure, but the WECC RS discussion, to be correct, has to assume that the circuit breaker is a RAS "component," which does not fit very well with the Protection System Glossary definition, that ends at the breaker trip coil. There is no Glossary definition of RAS components, and the NERC standards and Glossary are not consistent as to whether a RAS is a subset of Protection System.

TPL-001-4 Table 1, P4 and P5 do not cover this particular case either. All of Table 1 is pretty focused on clearing Faults. P4 addresses the case where a stuck breaker results in a multiple contingency because additional elements must trip to clear a SLG fault (Fault plus stuck breaker). P5 addresses a multiple contingency resulting from delayed fault clearing due to a failed non-redundant relay (Fault plus relay failure to operate). The RS claim at least implies that the failure of a

RAS-associated breaker to operate is the next, i.e. multiple contingency within the context of Table 1, which is not supported by the language of the TPL-001-4 standard. In any case, neither P4 nor P5 can apply to RAS because RAS are not intended for fault clearing, according to both the existing SPS and proposed new RAS Glossary definitions.

In addition, P4 would not apply because the failure of a breaker associated with a RAS to operate will seldom or never result in removing an element from service unintentionally. P5 applies to certain relay failures, but would also not apply here because the cause of the breaker failing to operate may be a mechanical problem, rather than a relay problem. There is also a concern for P5 applicability whether the RAS-associated breaker (function 52) would be part of the specific relay function numbers identified in note 13 (52 isn't in there).

Without an appropriate requirement to replace the function of this WECC variance requirement, System performance within WECC when a RAS is triggered is very likely be worse following failure of a RAS-associated breaker to operate if that failure is no longer required to be mitigated. PRC-012_R1.3 and TPL-001-4 Table 1 do not address this issue.

Document Name:

Likes: 0

Dislikes: 0

Brad Ryan - Berkshire Hathaway - PacifiCorp - 6 - WECC

Selected Answer: Yes

Answer Comment:

FAC-011 R5 should be unretired, so there is an obligation for the RC to address concerns raised by TOPs about the SOL methodology.

Document Name:

Likes: 0

Dislikes: 0

3. The PRT is recommending that the proposed FAC standards project develop revisions to the definition of System Operating Limit and develop a new defined term for SOL Exceedance. Justification is provided in FAC-011 and FAC-014 Periodic Review Recommendations and supporting white paper. Do you agree with this recommendation? If you do not agree, or if you agree but have comments or suggestions for the justification please provide your recommendation and explanation.

John Fontenot - Bryan Texas Utilities - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Robert Hirschak - Cleco Corporation - 6 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Nick Vtyurin - Manitoba Hydro - 1,3,5,6 - MRO

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Emily Rousseau - MRO - 1,2,3,4,5,6 - MRO

Group Information

Group Name: MRO-NERC Standards Review Forum (NSRF)

Group Member Name	Entity	Region	Segments
Joe Depoorter	Madison Gas & Electric	MRO	3,4,5,6
Amy Casucelli	Xcel Energy	MRO	1,3,5,6
Chuck Lawrence	American Transmission Company	MRO	1
Chuck Wicklund	Otter Tail Power Company	MRO	1,3,5
Theresa Allard	Minnkota Power Cooperative, Inc	MRO	1,3,5,6
Dave Rudolph	Basin Electric Power Cooperative	MRO	1,3,5,6

Kayleigh Wilkerson	Lincoln Electric System	MRO	1,3,5,6
Jodi Jenson	Western Area Power Administration	MRO	1,6
Larry Heckert	Alliant Energy	MRO	4
Mahmood Safi	Omaha Public Utility District	MRO	1,3,5,6
Marie Knox	Midwest ISO Inc.	MRO	2
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Randi Nyholm	Minnesota Power	MRO	1,5
Scott Nickels	Rochester Public Utilities	MRO	4
Terry Harbour	MidAmerican Energy Company	MRO	1,3,5,6
Tom Breene	Wisconsin Public Service Corporation	MRO	3,4,5,6
Tony Eddleman	Nebraska Public Power District	MRO	1,3,5

Voter Information

Voter	Segment
Emily Rousseau	1,2,3,4,5,6
Entity	Region(s)
MRO	MRO

Selected Answer: No

Answer Comment:

The NSRF agrees with much of proposed definitions and FAC-011 and FAC-014 recommendations. However, we have a number of comments and suggestion related to the definitions and recommendations.

For the SOL Definition:

- Replace the terse terms of “Voltage Limits”, “Transient Stability Limits”, and “Voltage Stability Limits” with more explanatory terms like, “Steady State Voltage Level Limits”, “Transient Voltage and Angular Stability Limits”, and “Steady State Voltage Stability Limits” to provide more readily convey the nature of each limit.
- As noted in the comments for Question 1, we proposed that separate terminology be established for the planning horizon and planning assessments, namely “System Planning Limits” (SPLs) and “Interconnection Reliability Planning Limits” (IRPLs). This differentiation is important since a System Operating Limit is best defined for the Operating Horizon and actual “exceedances” of SOLs occur only in real-time, not post-Contingency systems or future plausible systems.

For the SOL Exceedance Definition:

- If the term, “SOL Exceedance” is only meant to apply to actual (Real-Time) and not calculated (Planning) SOL exceedance, then change the term to “Actual SOL Exceedance” or “Real-Time SOL Exceedance.” However, to properly represent what an SOL exceedance actually is, the definition should be revised to something as simple as, “When a Real-time parameter exceeds an applicable System Operating Limit for a continuous period longer than the applicable duration of the System Operating Limit.” The focus of this definition is that exceedances of SOLs can only occur in real-time operation and every SOL has a time limit associated with it.
- If the above recommendation is rejected, the PRT must strike bullet #2, #4 and “post-Contingency” from bullet #5 of the proposed SOL Exceedance definition. The PRT has confused potential next contingency exceedances of an SOL with actual SOL exceedances in real-time. There are two reasons that the PRT must strike “post-Contingency” from the proposed definition:
 - An SOL Exceedance is only possible in real-time because currents, voltages and flows only exceed a limit when they are actually above the limit, not when they are currently below the limit but could be above the limit if something else happens. If the next contingency analysis identifies that the flow on a transmission line is projected to be greater than the thermal rating SOL of the line, the TOP has a potential SOL exceedance, not a real-time SOL exceedance. The definition confuses these two very different situations and the future SOL Exceedance definition should be reserved to real-time only.

The new NERC standard TOP-001-3 uses the SOL exceedance terminology as part of requirements R10 and R14. These requirements drive significant documentation requirements that are unreasonable for potential SOL exceedances. If potential SOL exceedances identified during real-time contingency analysis were pulled into the future SOL Exceedances definition, TOPs will be required to document initiation of their Operating Plans (TOP-001-3 R14) every time the real-time contingency analysis solved and identified a potential next contingency SOL exceedance. Since real-time contingency analysis solves every 2-3 minutes, this is an unreasonable burden for an event that is not a real-time SOL exceedance. By focusing the SOL exceedance on real-time SOL exceedances, emphasis is appropriately placed on the real-time reliability risk under the relevant TOP-001-3 requirements and the associated administrative burden is reasonably limited to documenting the conditions that warrant evidence under the standards as well as occasions for reviewing lessons learned.

Document Name:

Likes: 0

Dislikes: 0

Jennifer Losacco - NextEra Energy - Florida Power and Light Co. - 1 - FRCC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

David Bueche - CenterPoint Energy Houston Electric, LLC - NA - Not Applicable - TRE

Selected Answer:

Answer Comment:

CenterPoint Energy does not agree with the proposed SOL definition. It is understood the proposed SOL definition considers all four operating criteria to be SOLs. The Company feels a SOL label should only be attached to the most limiting of the four operating criteria. The Company feels the proposed SOL definition could bring an unintended compliance burden for other Standards and Requirements that use SOLs and IROLs as benchmarks for further action. For example, a Facility could have a Voltage Stability Limit which is considered a SOL and IROL by the Methodology established in FAC-011; however, the Entity's studies show the Facility Rating is the most limiting operating criteria and only meets the threshold for a SOL. The Company agrees each operating criteria needs to be analyzed for determining the most limiting but does not agree with labeling all four operating criteria as SOLs or potentially IROLs due to unintended implications existing for other Standards/Requirements. Furthermore, confusion exists with the language 'where applicable'. At what level does a Transmission Operator need to stress its system to determine which of the four operating criteria are 'applicable'? Also, the Company does not agree with changing the operating criteria, System Voltage Limits, to simply Voltage Limits. Overall, the Company feels no reliability benefit will be gained by the proposed definition. The Company does agree with simplifying the language of the current definition and proposes the following alternative definition:

System Operating Limit: The value that satisfies the most limiting among the following types of operating criteria:

- Facility Ratings
- System Voltage Limits
- Voltage Stability Ratings
- Transient Stability Ratings

CenterPoint Energy agrees with the need for a better interpretation of SOL Exceedance. While the Company agrees with the industry accepted SOL White Paper, the Company recognizes it is challenging to capture those concepts in a definition format. Limiting the conceptual approach for a SOL Exceedance to a definition creates confusion between exceeding a SOL in Real Time as opposed to a study environment, both of which carry completely different actions and responses and should not be referred to using the same terminology (SOL Exceedance). The Company agrees with the recommendation approach for IROL criteria and determination to be part of the SOL Methodology as mentioned in the FAC-011 PRR, and believes the SOL Exceedance concept could be approached in the same manner. The Company recommends the SOL Exceedance criteria to be captured as a Requirement in the SOL Methodology and not by a definition.

Document Name:

Likes: 0

Dislikes: 0

Thomas Foltz - AEP - 5 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Si Truc Phan - Hydro-Qu?bec TransEnergie - 1 - NPCC

Selected Answer: Yes

Answer Comment:

Although it is not yet completely clear how the term SOL Exceedance would be used in the revised standards, HQT supports any improvement made in clarifying the SOL standards. The review team should put more emphasis on the importance of revising the IROL definition and having clearer guidelines on the determination and real-time application of SOLs/IROLs, especially for the “impact-based” criteria related to the establishment of IROLs.

Document Name:

Likes: 0

Dislikes: 0

Alshare Hughes - Luminant - Luminant Generation Company LLC - 5,6,7 - TRE

Selected Answer: No

Answer Comment:

The proposed SOL definition is too broad. As written, it includes all types of equipment regardless of its potential impact on reliability. This broad definition could introduce unnecessary administrative and compliance burden with no impact on reliability.

Document Name:

Likes: 0

Dislikes: 0

Randi Heise - Dominion - Dominion Resources, Inc. - 5 -

Group Information

Group Name: Dominion - RCS

Group Member Name	Entity	Region	Segments
Larry Nash	Dominion Virginia Power	SERC	1
Louis Slade	Dominion Resources, Inc.	SERC	6
Connie Lowe	Dominion Resources, Inc.	RFC	3
Randi Heise	Dominion Resources, Inc,	NPCC	5

Voter Information

Voter **Segment**
Randi Heise 5

Entity **Region(s)**
Dominion - Dominion Resources, Inc.

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Tammy Porter - Oncor Electric Delivery - 1 - TRE

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Pusztai - American Transmission Company, LLC - 1 -

Selected Answer: No

Answer Comment:

ATC agrees with much of proposed definitions and FAC-011 and FAC-014 recommendations. However, ATC has a number of comments and suggestions related to the definitions and recommendations.

ATC has the following recommendations regarding the SOL Definition:

- Replace the terse terms of “Voltage Limits”, “Transient Stability Limits”, and “Voltage Stability Limits” with more explanatory terms like, “Steady State Voltage Level Limits”, “Transient Voltage and Angular Stability Limits”, and “Steady State Voltage Stability Limits” to provide more readily convey the nature of each limit.
- As noted in the comments for Question 1, we proposed that separate terminology be established for the planning horizon and planning assessments, namely “System Planning Limits” (SPLs) and “Interconnection Reliability Planning Limits” (IRPLs). This differentiation is important since a System Operating Limit is best defined for the Operating Horizon and actual “exceedances” of SOLs occur only in real-time, not post-Contingency systems or future plausible systems.

ATC has the following recommendations regarding the SOL Exceedance Definition:

- If the term, “SOL Exceedance” is only meant to apply to actual (Real-Time) and not calculated (Planning) SOL exceedance, then change the term to “Actual SOL Exceedance” or “Real-Time SOL Exceedance.” However, to properly represent what an SOL exceedance actually is, the definition should be revised to read as follows: “When a Real-time parameter

exceeds an applicable System Operating Limit for a continuous period longer than the applicable duration of the System Operating Limit.” The focus of this definition is that exceedances of SOLs can only occur in real-time operation and every SOL has a time limit associated with it.

- If the above recommendation is rejected, the PRT should consider striking bullet #2, #4 and “post-Contingency” from bullet #5 of the proposed SOL Exceedance definition in the “Rationale for Revising the Definition of SOL”.. The PRT has confused potential next contingency exceedances of an SOL with actual SOL exceedances in real-time. There are two reasons for striking “post-Contingency” from the proposed definition:
 - An SOL Exceedance is only possible in real-time because currents, voltages and flows only exceed a limit when they are actually above the limit, not when they are currently below the limit but could be above the limit if something else happens. If the next contingency analysis identifies that the flow on a transmission line is projected to be greater than the thermal rating SOL of the line, the TOP has a potential SOL exceedance, not a real-time SOL exceedance. The definition confuses these two very different situations and the future SOL Exceedance definition should be reserved to real-time only.
 - The new NERC standard TOP-001-3 uses the SOL exceedance terminology as part of requirements R10 and R14. These requirements drive significant documentation requirements that are unreasonable for potential SOL exceedances. If potential SOL exceedances identified during real-time contingency analysis were pulled into the future SOL Exceedances definition, TOPs will be required to document initiation of their Operating Plans (TOP-001-3 R14) every time the real-time contingency analysis solved and identified a potential next contingency SOL exceedance. Since real-time contingency analysis solves every 2-3 minutes, this is an unreasonable burden for an event that is not a real-time SOL exceedance. By focusing the SOL exceedance on real-time SOL exceedances, emphasis is appropriately placed on the real-time reliability risk under the relevant TOP-001-3 requirements and the associated administrative burden is reasonably limited to documenting the conditions that warrant evidence under the standards as well as occasions for reviewing lessons learned.

Document Name:

Likes: 0

Dislikes: 0

Jared Shakespeare - Peak Reliability - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Richard Vine - California ISO - 2 -

Selected Answer:

Answer Comment:

The California ISO supports comments provided by the ISO/RTO Standards Review Committee

Document Name:

Likes: 0

Dislikes: 0

Molly Devine - IDACORP - Idaho Power Company - 1 -

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Gallo - Austin Energy - 6 -

Selected Answer: No

Answer Comment:

City of Austin dba Austin Energy (AE) is amenable to revising the definition of “System Operating Limit” (SOL) but does not agree with the proposed definition from the Periodic Review Team (PRT). For clarity, AE proposes defining an SOL as the most limiting of the four types of reliability limits (Facility Ratings, Voltage Limits, Transient Stability Limits and Voltage Stability Limits) not “any applicable limit among” the four types. Further, AE believes “Voltage Limits” should remain “System Voltage Limits” to avoid confusion.

Document Name:

Likes: 0

Dislikes: 0

RoLynda Shumpert - SCANA - South Carolina Electric and Gas Co. - 1,3,5,6 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

christina bigelow - Electric Reliability Council of Texas, Inc. - 2 -

Selected Answer: Yes

Answer Comment:

ERCOT has signed onto and supports the comments to be submitted by the ISO/RTO Council Standards Review Committee.

Document Name:

Likes: 0

Dislikes: 0

Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RFC

Group Information

Group Name: Duke Energy

Group Member Name	Entity	Region	Segments
Doug Hils	Duke Energy	RFC	1
Lee Schuster	Duke Energy	FRCC	3
Dale Goodwine	Duke Energy	SERC	5
Greg Cecil	Duke Energy	RFC	6

Voter Information

Voter	Segment
Colby Bellville	1,3,5,6
Entity	Region(s)
Duke Energy	FRCC,SERC,RFC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Joel Wise - Tennessee Valley Authority - 1,3,5,6 - SERC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Michael Shaw - Lower Colorado River Authority - 6 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5
Michael Shaw	LCRA	TRE	6

Voter Information

Voter **Segment**

Michael Shaw 6

Entity **Region(s)**

Lower Colorado River Authority

Selected Answer:

Answer Comment:

Document Name: 2015-03_CommentForm.docx

Likes: 0

Dislikes: 0

Kaleb Brimhall - Colorado Springs Utilities - 5 -

Group Information

Group Name: Colorado Springs Utilities

Group Member Name	Entity	Region	Segments
Shawna Speer	Colorado Springs Utilities	WECC	1
Charlie Morgan	Colorado Springs Utilities	WECC	3
Shannon Fair	Colorado Springs Utilities	WECC	6
Kaleb Brimhall	Colorado Springs Utilities	WECC	5

Voter Information

Voter	Segment
Kaleb Brimhall	5
Entity	Region(s)
Colorado Springs Utilities	

Selected Answer: Yes

Answer Comment:

CSU believes that review and revision of the definitions would be beneficial to reduce confusion and ambiguity. Concerning the proposed definition of "SOL Exceedance" is it being proposed by the drafting team that "SOL Exceedance" would equal an SOL Violation based on this new definition?

Document Name:

Likes: 0

Dislikes: 0

Lee Pedowicz - Northeast Power Coordinating Council - 10 - NPCC

Group Information

Group Name: NPCC--Project 2015-03

Group Member Name	Entity	Region	Segments
Alan Adamson	New York State Reliability Council, LLC	NPCC	10
David Burke	Orange and Rockland Utilities Inc.	NPCC	3
Greg Campoli	New York Independent System Operator	NPCC	2
Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
Kelly Dash	Consolidated Edison Co. of New York, Inc.	NPCC	1
Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
Mark Kenny	Northeast Utilities	NPCC	1
Helen Lainis	Independent Electricity System Operator	NPCC	2
Alan MacNaughton	New Brunswick Power Corporation	NPCC	9
Paul Malozewski	Hydro One Networks Inc.	NPCC	1
Bruce Metruck	New York Power Authority	NPCC	6
Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
Robert Pellegrini	The United Illuminating Company	NPCC	1
Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
Brian Robinson	Utility Services	NPCC	8
Wayne Sipperly	New York Power Authority	NPCC	5
Edward Bedder	Orange and Rockland Utilities Inc.	NPCC	1
Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
Michael Jones	National Grid	NPCC	1
Brian Shanahan	National Grid	NPCC	1
Michael Forte	Consolidated Edison Co. of New York, Inc.	NPCC	1
Glen Smith	Entergy Services, Inc.	NPCC	5
Brian O'Boyle	Consolidated Edison Co. of New York, Inc.	NPCC	8
RuiDa Shu	Northeast Power Coordinating Council	NPCC	10

Connie Lowe	Dominion Resources Services, Inc.	NPCC	5
Kathleen Goodman	ISO - New England	NPCC	2

Voter Information

Voter	Segment
Lee Pedowicz	10
Entity	Region(s)
Northeast Power Coordinating Council	NPCC

Selected Answer: No

Answer Comment:

We agree with the recommendation to revise the definitions of SOL and IROL. When developing the revised definition of IROL, suggest that the SDT consider introducing the concept of “impacts on interconnected systems” to distinguish between what might be a relatively local instability (SOLs), and instability having a wider area impact (IROLs).

We do not agree with the proposed SOL Exceedance definition. For example, we do not agree with the second bullet which says: “highest available Facility Rating”. Instead it should be the “applicable rating” which in fact may not be the highest.

We also disagree with the fifth bullet. A SOL determination based on transient or voltage stability concerns are either a MW flow level on a line or defined interface, or the applicable pre or post-contingency bus voltages. This proposed bullet ties the SOL Exceedance to stability or voltage performance (not a value or level), which should have been observed in the SOL/IROL calculations. We suggest deleting the bullet.

Although it is not yet clear how the term SOL Exceedance would be used in the revised standards, the PRT should emphasize the importance of revising the IROL definition and having clearer guidelines on the determination and Real-time application of SOLs/IROLs, especially for the “impact-based” criteria related to the establishment of IROLs.

Document Name:

Likes: 0

Dislikes: 0

Anthony Jablonski - ReliabilityFirst - 10 -

Selected Answer:

Answer Comment:

ReliabilityFirst has the following comments related to the proposed definition of SOL Exceedance.

1.
 - i. Is there a time limit for an SOL exceedance? For example, is it justified to operate one contingency away from voltage collapse for an extended period of time?
 - ii. The SOL Exceedance states "Actual flow on a Facility is above the Facility Rating for an unacceptable time duration." ReliabilityFirst requests clarification on the term "unacceptable?"

Document Name:

Likes: 0

Dislikes: 0

Steven Rueckert - Western Electricity Coordinating Council - 10 -

Selected Answer: No

Answer Comment:

SOL is already sufficiently defined as “the most limiting of the prescribed operating criteria”. It is a single value; the most limiting of the set of values determined for the various criteria and durations. SOL requires no further definition.

The PRT statement that “Operating Plan(s) must include the appropriate time element to return the system to within acceptable Normal and Emergency (short-term) Ratings and/or operating limits identified above” is not supported by the requirements. The TOP standards require “immediate action” and any Tv related to SOLs are defined in the applicable standards.

The SOL is the single value to which system operators operate, pre- or post-contingency. The Standard Requirements and the NERC Glossary should not be designating what mitigating actions are required, or may take place, based on time parameters. The RC is required to have a SOL Methodology, and it is this methodology that addresses the issues the PRT appears to be attempting to address through definitions.

Further, the term “exceed” also already has a definition and when a (the) SOL, as determined by the entity using the RC methodology, is exceeded, system operators must take “immediate action”, regardless of any duration associated with the limit.

Document Name:

Likes: 0

Dislikes: 0

Ben Engelby - ACES Power Marketing - 6 -

Group Information

Group Name: ACES Standards Collaborators - FAC Project

Group Member Name	Entity	Region	Segments
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Shari Heino	Brazos Electric Power Cooperative, Inc.	TRE	1,5

Kevin Lyons	Central Iowa Power Cooperative	MRO	1
Amber Skillern	East Kentucky Power Cooperative	SERC	1,3
Ginger Mercier	Prairie Power Inc.	SERC	1,3

Voter Information

Voter **Segment**

Ben Engelby 6

Entity **Region(s)**

ACES Power Marketing

Selected Answer: No

Answer Comment:

We are not opposed to the recommendation to modify the definition of SOL but are concerned with the definition as proposed. The proposed definition fundamentally alters the way SOLs are determined and calculated. Today, the existing definition of SOL does not require every Facility to have a SOL only that an SOL cannot exceed a Facility rating for the given Facility. With the proposed changes, every Facility will have an SOL because every Facility must have a rating per FAC-008-3 R6.

For consistency with language used surrounding IROLs, we recommend using the term SOL violation rather than SOL exceedance. Excursions above IROL limits for a time duration less than Tv are called exceedances rather than violations. If the excursion lasts longer than Tv, then it becomes a violation. An excursion above an SOL based on a Facility rating for time less than the time constant (i.e. less than 12 hours for a 12-hour rating) associated with the rating should be viewed as a temporary exceedance. Whereas an excursion above the same SOL for longer than the associated time constant should be viewed as an SOL violation.

Document Name:

Likes: 0

Dislikes: 0

Gregory Campoli - New York Independent System Operator - 2 -

Group Information

Group Name: ISO/RTO Standards Review Committee

Group Member Name	Entity	Region	Segments
Gregory Campoli	NYISO	NPCC	2
Ben Li	IESO	NPCC	2
Kathleen Goodman	ISONO	NPCC	2
Mark Holman	PJM	NPCC	2
Charles Yeung	SPP	SPP	2
Terry Bilke	MISO	MRO	2
Christina Bigelow	ERCOT	TRE	2
Ali Miremadi	CAISO	WECC	2

Voter Information

Voter	Segment
Gregory Campoli	2
Entity	Region(s)
New York Independent System Operator	

Selected Answer:

Answer Comment:

: The SRC supports improvement to the definition, but will reserve the detailed comments for the posted red line of the definition. The SDT should ensure that any modifications to the definition will not affect existing standards, policies, or procedures that registered entities have already established to ensure that the most appropriate System Operating Limit for a Facility is respected during real-time operations.

Document Name:

Likes: 0

Dislikes: 0

Leonard Kula - Independent Electricity System Operator - 2 -

Selected Answer: Yes

Answer Comment:

We agree with this recommendation to revise the definitions of SOL and IROL. Further, when developing the revised definition to IROL, we suggest the SDT to consider introducing the concept of “impacts on interconnected systems” to distinguish between instability of local nature (SOLs) and instability having a wider area impact (IROLs).

That said, we do not agree with the proposed SOL Exceedance definition. For example, we do not agree with the second bullet which says: “highest available Facility Rating”, which in our view should be the “applicable rating”, which may not be the highest (e.g. 5-minute rating > 15-minute rating, but the applicable rating could be the latter). We also disagree with the fifth bullet. An SOL determined based on transient or voltage stability concerns are either a MW flow level on a line or defined interface, or the applicable pre or post-contingency bus voltages. The proposed definition (the bullet) ties the SOL exceedance to stability or voltage performance (not a value or level), which should have been observed in the SOL/IROL calculation state. We suggest the SDT to consider rewording it accordingly.

Document Name:

Likes: 0

Dislikes: 0

David Jendras - Ameren - Ameren Services - 3 -

Selected Answer: No

Answer Comment:

We do not believe a new term “SOL Exceedance” is necessary, particularly for the planning horizon, and ask the PRT to provide justification.

Document Name:

Likes: 0

Dislikes: 0

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Teresa Czyz - Georgia Transmission Corporation - 1 - SERC

Selected Answer: Yes

Answer Comment:

GTC does not recommend for the SOL definition simply be defined as facility ratings, voltage limits, transient stability limits, or voltage stability limits as proposed. The SOL definition should be related to corrective action for certain system configurations/conditions (as specified in TPL-001-4) where curtailment of firm service is necessary to avoid exceeding applicable reliability ratings. For example, an event specified by TPL-001-4 results in a generator's output being curtailed to avoid violating an applicable reliability limit, the amount the generator is being curtailed would be classified as an SOL. For this example, the SOL could occur in the operations or planning horizon.

Document Name:

Likes: 0

Dislikes: 0

Jason Snodgrass - Georgia Transmission Corporation - 1 -

Selected Answer: Yes

Answer Comment:

GTC does not recommend for the SOL definition simply be defined as facility ratings, voltage limits, transient stability limits, or voltage stability limits as proposed. The SOL definition should be related to corrective action for certain system configurations/conditions (as specified in TPL-001-4) where curtailment of firm service is necessary to avoid exceeding applicable reliability ratings. For example, an event specified by TPL-001-4 results in a generator's output being curtailed to avoid violating an applicable reliability limit, the amount the generator is being curtailed would be classified as an SOL. For this example, the SOL could occur in the operations or planning horizon.

Document Name:

Likes: 0

Dislikes: 0

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP

Group Information

Group Name: SPP Standards Review Group

Group Member Name	Entity	Region	Segments
Shannon Mickens	Southwest Power Pool Inc.	SPP	2
Jonathan Hayes	Southwest Power Pool Inc	SPP	2
Gary Cox	Southwestern Power Administration	SPP	1
James Nail	City of Independence, Missouri	SPP	3,5
Stephanie Johnson	Westar Energy, Inc	SPP	1,3,5,6
Jason Smith	Southwest Power Pool Inc	SPP	2
Jeff Knottek	City Utilities of Springfield	SPP	1,4
Greg McAuley	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
Bo Jones	Westar Energy, Inc	SPP	1,3,5,6

Tiffany Lake	Westar Energy, Inc	SPP	1,3,5,6
Sing Tay	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
J.Scott Williams	City Utilities of Springfield	SPP	1,4
William Wilson	Oklahoma Gas and Electric Co.	SPP	1,3,5,6

Voter Information

Voter **Segment**

Shannon Mickens 2

Entity **Region(s)**

Southwest Power Pool, Inc. (RTO) SPP

Selected Answer: Yes

Answer Comment:

We agree with the PRT that the definition of the term ‘System Operating Limit- (SOL)’ has created confusion in the industry and needs to be revised for clarity on how the term should be defined and used in the Standard process . We suggest the PRT continue coordinating efforts with Alignment of Terms (Project 2015-04). This SDT is working on efforts to address terms and their definitions like (SOL) and to ensure that they’re properly aligned with documents such as the Glossary of Terms and the Rules of Procedure (RoP).

We also caution the PRT that the stability components of the definition and/or Standard revisions need to capture that stability limit determinations are largely done in offline studies. The prevalence of online or near-real time stability analysis is not widespread. The definition changes or requirements need to reflect that there is not an expectation or requirement to determine these voltage and transient stability limits in real-time.

Document Name:

Likes: 0

Dislikes: 0

Dixie Wells - Lower Colorado River Authority - 5 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Michael Shaw	LCRA	TRE	6
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5

Voter Information

Voter **Segment**

Dixie Wells 5

Entity **Region(s)**

Lower Colorado River Authority

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Rachel Coyne - Texas Reliability Entity, Inc. - 10 -

Selected Answer: No

Answer Comment:

Texas RE requests clarification regarding what the “implication of a compliance obligation” is in FAC-014 R1.

Document Name:

Likes: 0

Dislikes: 0

Gene Henneberg - NV Energy - Sierra Pacific Power Co. - NA - Not Applicable - WECC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Brad Ryan - Berkshire Hathaway - PacifiCorp - 6 - WECC

Selected Answer: Yes

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

4. Provide any additional comments for the PRT to consider that were not addressed in the preceding questions, if desired.

John Fontenot - Bryan Texas Utilities - 1 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Robert Hirschak - Cleco Corporation - 6 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Nick Vtyurin - Manitoba Hydro - 1,3,5,6 - MRO

Selected Answer:

Answer Comment:

Manitoba Hydro is supportive of retiring requirements R3, R4, R5.3 and R5.4 from FAC-014. Rather than update the reference in R6 in FAC-014, consideration should be given to including this requirement in TPL-001-4, as part of the annual assessment report, if it is needed. If all of these changes are made then Transmission Planning and Planning Coordinator can be removed from the Applicability section.

Document Name:

Likes: 0

Dislikes: 0

Emily Rousseau - MRO - 1,2,3,4,5,6 - MRO

Group Information

Group Name: MRO-NERC Standards Review Forum (NSRF)

Group Member Name	Entity	Region	Segments
Joe Depoorter	Madison Gas & Electric	MRO	3,4,5,6
Amy Casucelli	Xcel Energy	MRO	1,3,5,6

Chuck Lawrence	American Transmission Company	MRO	1
Chuck Wicklund	Otter Tail Power Company	MRO	1,3,5
Theresa Allard	Minnkota Power Cooperative, Inc	MRO	1,3,5,6
Dave Rudolph	Basin Electric Power Cooperative	MRO	1,3,5,6
Kayleigh Wilkerson	Lincoln Electric System	MRO	1,3,5,6
Jodi Jenson	Western Area Power Administration	MRO	1,6
Larry Heckert	Alliant Energy	MRO	4
Mahmood Safi	Omaha Public Utility District	MRO	1,3,5,6
Marie Knox	Midwest ISO Inc.	MRO	2
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Randi Nyholm	Minnesota Power	MRO	1,5
Scott Nickels	Rochester Public Utilities	MRO	4
Terry Harbour	MidAmerican Energy Company	MRO	1,3,5,6
Tom Breene	Wisconsin Public Service Corporation	MRO	3,4,5,6
Tony Eddleman	Nebraska Public Power District	MRO	1,3,5

Voter Information

Voter	Segment
Emily Rousseau	1,2,3,4,5,6
Entity	Region(s)
MRO	MRO

Selected Answer:

Answer Comment:

For FAC-011-4 Recommendations

- The NSRF disagrees with the PRT's recommendation that voltage limits must be specifically addressed within the standard. FAC-011-3 currently uses the defined term System Operating Limit, which clearly incorporates voltage limits by definition.

For FAC-014-3 Recommendations

- As noted above, The NSRF proposes that R3, R4, R6, and the planning horizon portions of R5 in FAC-014-2 be moved to a FAC-010-4 standard.
- As noted above, The NSRF proposes that R1, R2, and the operating horizon portions of R5 in FAC-014-2 be moved to a FAC-011-4 standard.
- The NSRF disagrees with the recommendation that R3 and R4 should be retired. The application of planning SOL and IROL criteria and methodology, which may be duplicated in part by R5 and R6 of TPL-001-4, results in specific SOLs for specific elements and these element-specific must continue to be established by PCs and TPs.

Document Name:

Likes: 0

Dislikes: 0

Jennifer Losacco - NextEra Energy - Florida Power and Light Co. - 1 - FRCC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

David Bueche - CenterPoint Energy Houston Electric, LLC - NA - Not Applicable - TRE

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Thomas Foltz - AEP - 5 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Si Truc Phan - Hydro-Qu?bec TransEnergie - 1 - NPCC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Alshare Hughes - Luminant - Luminant Generation Company LLC - 5,6,7 - TRE

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Randi Heise - Dominion - Dominion Resources, Inc. - 5 -

Group Information

Group Name: Dominion - RCS

Group Member Name	Entity	Region	Segments
Larry Nash	Dominion Virginia Power	SERC	1
Louis Slade	Dominion Resources, Inc.	SERC	6
Connie Lowe	Dominion Resources, Inc.	RFC	3
Randi Heise	Dominion Resources, Inc,	NPCC	5

Voter Information

Voter	Segment
Randi Heise	5
Entity	Region(s)
Dominion - Dominion Resources, Inc.	

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Tammy Porter - Oncor Electric Delivery - 1 - TRE

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Puztai - American Transmission Company, LLC - 1 -

Selected Answer:

Answer Comment:

ATC has the following recommendation regarding FAC-011-3

- ATC disagrees with the PRT's recommendation that voltage limits must be specifically addressed within the standard. FAC-011-3 currently uses the defined term System Operating Limit, which clearly incorporates voltage limits by definition.

ATC recommends that FAC-014-2 be Retired

- As noted above in response to Question #1, ATC proposes that R3, R4, R6 in FAC-010-3, and the planning horizon portions of R5 in FAC-014-2 be moved to a FAC-010-4 standard.
- As noted above in response to Question #2, **ATC proposes that R1, R2 in FAC-010-3, and the operating horizon portions of R5 in FAC-014-2 be moved to a FAC-011-4 standard.**

ATC disagrees with the recommendation that R3 and R4 in FAC-010-3 should be retired. The application of planning SOL and IROL criteria and methodology, which may be duplicated in part by R5 and R6 of TPL-001-4, results in specific SOLs for specific elements and these element-specific must continue to be established by PCs and TPs.

Document Name:

Likes: 0

Dislikes: 0

Jared Shakespeare - Peak Reliability - 1 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Richard Vine - California ISO - 2 -

Selected Answer:

Answer Comment:

The California ISO supports comments provided by the ISO/RTO Standards Review Committee

Document Name:

Likes: 0

Dislikes: 0

Molly Devine - IDACORP - Idaho Power Company - 1 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrew Gallo - Austin Energy - 6 -

Selected Answer:

Answer Comment: None.

Document Name:

Likes: 0

Dislikes: 0

RoLynda Shumpert - SCANA - South Carolina Electric and Gas Co. - 1,3,5,6 - SERC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

christina bigelow - Electric Reliability Council of Texas, Inc. - 2 -

Selected Answer:

Answer Comment:

ERCOT has signed onto and supports the comments to be submitted by the ISO/RTO Council Standards Review Committee.

Document Name:

Likes: 0

Dislikes: 0

Colby Bellville - Duke Energy - 1,3,5,6 - FRCC,SERC,RFC

Group Information

Group Name: Duke Energy

Group Member Name	Entity	Region	Segments
Doug Hils	Duke Energy	RFC	1
Lee Schuster	Duke Energy	FRCC	3
Dale Goodwine	Duke Energy	SERC	5
Greg Cecil	Duke Energy	RFC	6

Voter Information

Voter	Segment
Colby Bellville	1,3,5,6
Entity	Region(s)
Duke Energy	FRCC,SERC,RFC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Joel Wise - Tennessee Valley Authority - 1,3,5,6 - SERC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Michael Shaw - Lower Colorado River Authority - 6 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5
Michael Shaw	LCRA	TRE	6

Voter Information

Voter	Segment
Michael Shaw	6
Entity	Region(s)
Lower Colorado River Authority	

Selected Answer:

Answer Comment:

Document Name: 2015-03_CommentForm.docx

Likes: 0

Dislikes: 0

Kaleb Brimhall - Colorado Springs Utilities - 5 -

Group Information

Group Name: Colorado Springs Utilities

Group Member Name	Entity	Region	Segments
Shawna Speer	Colorado Springs Utilities	WECC	1
Charlie Morgan	Colorado Springs Utilities	WECC	3
Shannon Fair	Colorado Springs Utilities	WECC	6
Kaleb Brimhall	Colorado Springs Utilities	WECC	5

Voter Information

Voter	Segment
Kaleb Brimhall	5
Entity	Region(s)
Colorado Springs Utilities	

Selected Answer:

Answer Comment:

Thank you for PRT team, this is one of the best reviews CSU has seen for a periodic review - it looked like the focus was not reliability!

Document Name:

Likes: 0

Dislikes: 0

Lee Pedowicz - Northeast Power Coordinating Council - 10 - NPCC

Group Information

Group Name: NPCC--Project 2015-03

Group Member Name	Entity	Region	Segments
Alan Adamson	New York State Reliability Council, LLC	NPCC	10

David Burke	Orange and Rockland Utilities Inc.	NPCC	3
Greg Campoli	New York Independent System Operator	NPCC	2
Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
Kelly Dash	Consolidated Edison Co. of New York, Inc.	NPCC	1
Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
Mark Kenny	Northeast Utilities	NPCC	1
Helen Lainis	Independent Electricity System Operator	NPCC	2
Alan MacNaughton	New Brunswick Power Corporation	NPCC	9
Paul Malozewski	Hydro One Networks Inc.	NPCC	1
Bruce Metruck	New York Power Authority	NPCC	6
Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
Robert Pellegrini	The United Illuminating Company	NPCC	1
Si Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
Brian Robinson	Utility Services	NPCC	8
Wayne Sipperly	New York Power Authority	NPCC	5
Edward Bedder	Orange and Rockland Utilities Inc.	NPCC	1
Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3
Michael Jones	National Grid	NPCC	1
Brian Shanahan	National Grid	NPCC	1
Michael Forte	Consolidated Edison Co. of New York, Inc.	NPCC	1
Glen Smith	Entergy Services, Inc.	NPCC	5
Brian O'Boyle	Consolidated Edison Co. of New York, Inc.	NPCC	8
RuiDa Shu	Northeast Power Coordinating Council	NPCC	10
Connie Lowe	Dominion Resources Services, Inc.	NPCC	5
Kathleen Goodman	ISO - New England	NPCC	2

Voter Information

Voter	Segment
Lee Pedowicz	10
Entity	Region(s)
Northeast Power Coordinating Council	NPCC

Selected Answer:

Answer Comment:

Is it intended to retire the existing IROL definition and replace it with the proposed SOL Exceedance definition?

The existing IROL definition should be revised for the clarifications and additions recognized by the PRT. It is not necessary to develop a new definition.

The phrase "SOL Exceedance" or "exceed a SOL" are self-explanatory and do not present a problem being used in TOP and IRO standards.

The TOP is not required to develop a SOL calculation methodology, but it is required to calculate SOLs and IROLs. With the proposal to retire FAC-010, leaving the RC as the sole authority to develop the SOL calculation methodology (per FAC-011), we propose that the TOP should be required to use the RC developed SOL methodology when it develops SOLs for its portion of the Reliability Coordinator area.

We disagree with the statement made in the first bullet on page 7 of the Periodic Review Template for FAC-011, which says:

- In current FAC-011-3, SOLs are established to meet defined pre- and post-Contingency reliability criteria (Requirement R2). Operating within these SOLs in Real-time operations is intended to ensure acceptable pre- and post-Contingency system performance. This approach is flawed because it does not adequately account for the changing nature of the system in Real-time, which impacts the system limits.

Most RCs and TOPs (if not all) develop SOLs respecting defined pre and post-Contingency reliability criteria not only for a single snap-shot condition, but for a variety of conditions, such as different load levels, BES facility outage conditions, various levels of loading on critical interfaces, etc. The scope of coverage of these SOLs is thus valid for a wide range of system conditions, either predicted in operations planning or encountered in Real-time operations. If, and when, the predicted or actual conditions should go outside of a SOL's initial scope of coverage, by virtue of the requirements in the related IRO and TOP standards the RC and TOP will reconfirm or re-establish a set of SOLs to ensure reliability for these newly identified system conditions. We therefore suggest the SDT to

remove this incorrect statement from the Template.

A results-based standard would require the RC to develop SOLs and IROLs for use in Real-time, communicate the IROL and associated contingencies to the TO and GO to satisfy compliance obligations, as is done in CIP and FAC-003 standards.

There should be a link between the operating criteria the Planner develops in TPL-001-4 and the RC's development of SOLs and IROLs in FAC-011-3. There should be consistency between the Planning Horizon and Operating Horizon, recognizing that Real-time Operations will oftentimes differ from a Planning Horizon study.

On page 10 of the Periodic Review Recommendation FAC-011-3 - System Operating Limits Methodology for the Operations Horizon, the first sentence of the last paragraph of Item 6 (from page 9) refers to FAC-010. Shouldn't that be FAC-011?

Document Name:

Likes: 0

Dislikes: 0

Anthony Jablonski - ReliabilityFirst - 10 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Steven Rueckert - Western Electricity Coordinating Council - 10 -

Selected Answer:

Answer Comment:

While it is legitimate to view the FAC standards in terms of their value to or burden on the planning process, it should be recognized that the terms and definitions, as well as the required planning output of the FAC requirement are inputs to the TOP and IRO Standards, and impact real-time operations.

Document Name:

Likes: 0

Dislikes: 0

Ben Engelby - ACES Power Marketing - 6 -

Group Information

Group Name: ACES Standards Collaborators - FAC Project

Group Member Name	Entity	Region	Segments
Mike Brytowski	Great River Energy	MRO	1,3,5,6
Shari Heino	Brazos Electric Power Cooperative, Inc.	TRE	1,5
Kevin Lyons	Central Iowa Power Cooperative	MRO	1
Amber Skillern	East Kentucky Power Cooperative	SERC	1,3
Ginger Mercier	Prairie Power Inc.	SERC	1,3

Voter Information

Voter	Segment
Ben Engelby	6
Entity	Region(s)
ACES Power Marketing	

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Gregory Campoli - New York Independent System Operator - 2 -

Group Information

Group Name: ISO/RTO Standards Review Committee

Group Member Name	Entity	Region	Segments
Gregory Campoli	NYISO	NPCC	2
Ben Li	IESO	NPCC	2

Kathleen Goodman	ISONO	NPCC	2
Mark Holman	PJM	NPCC	2
Charles Yeung	SPP	SPP	2
Terry Bilke	MISO	MRO	2
Christina Bigelow	ERCOT	TRE	2
Ali Miremadi	CAISO	WECC	2

Voter Information

Voter **Segment**

Gregory Campoli 2

Entity **Region(s)**

New York Independent System Operator

Selected Answer:

Answer Comment:

1. The Periodic Review Team recommends that the SDT be convened to revise FAC-011 to specify system performance standards rather than leaving it solely on the Reliability Coordinator to determine an appropriate methodology. While the SRC is not opposed to the provision of additional guidance or criteria to better ensure system reliability, such revisions should not be overly prescriptive such that the reliability standard determines how SOLs are determined and does not allow Reliability Coordinators to exercise their engineering judgment and operating experience when defining SOLs.
2. The SRC supports the retirement or revision of Requirement R1 in FAC-014.
3. The SRC supports the review and revision of FAC-014 generally, but requests that the SDT strongly consider consolidation of FAC-011 and FAC-014 and, further, consider placement of additional RC data requirements into existing data specification standards such as IRO-010.

Document Name:

Likes: 0

Dislikes: 0

Leonard Kula - Independent Electricity System Operator - 2 -

Selected Answer:

Answer Comment:

We disagree with the statement made in the first bullet on P. 7 of the Periodic Review Template for FAC-011, which says:

In current FAC-011-3, SOLs are established to meet defined pre- and post-Contingency reliability criteria (Requirement R2). Operating within these SOLs in Real-time operations is intended to ensure acceptable pre- and post-Contingency system performance. This approach is flawed because it does not adequately account for the changing nature of the system in Real-Time, which impacts the system limits.

We disagree with this statement since we believe most RCs and TOPs (if not all) develop SOLs respecting defined pre- and post-contingency reliability criteria not only for a single snap shot condition, but for a variety of conditions such as different load levels, BES facility outage conditions, various levels of loading on critical interfaces, etc. The scope of coverage of these SOLs is thus valid for a wide range of system conditions - either predicted in operations planning or encountered in real time operations. If and when the predicted or actual conditions should go outside of the SOL's initial scope of coverage, by virtue of the requirements in the related IRO and TOP standards the RC and TOP will re-confirm or re-establish a set of SOLs to ensure reliability for these newly identified system conditions. We therefore suggest the SDT to remove this incorrect statement from the Template.

Document Name:

Likes: 0

Dislikes: 0

David Jendras - Ameren - Ameren Services - 3 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Andrea Jessup - Bonneville Power Administration - 1,3,5,6 - WECC

Selected Answer:

Answer Comment: None.

Document Name:

Likes: 0

Dislikes: 0

Teresa Czyz - Georgia Transmission Corporation - 1 - SERC

Selected Answer:

Answer Comment:

GTC agrees that the SOL definition as it stands is ambiguous and can lead to confusion. However, the proposed definition seems to equate reliability limits with SOLs which would make identification of SOLs unnecessary. SOLs should be identified as a necessary means to remain within applicable reliability limits for certain events specified by TPL-001-4.

Document Name:

Likes: 0

Dislikes: 0

Jason Snodgrass - Georgia Transmission Corporation - 1 -

Selected Answer:

Answer Comment:

GTC agrees that the SOL definition as it stands is ambiguous and can lead to confusion. However, the proposed definition seems to equate reliability limits with SOLs which would make identification of SOLs unnecessary. SOLs should be identified as a necessary means to remain within applicable reliability limits for certain events specified by TPL-001-4.

Document Name:

Likes: 0

Dislikes: 0

Shannon Mickens - Southwest Power Pool, Inc. (RTO) - 2 - SPP

[Group Information](#)

Group Name: SPP Standards Review Group

Group Member Name	Entity	Region	Segments
Shannon Mickens	Southwest Power Pool Inc.	SPP	2
Jonathan Hayes	Southwest Power Pool Inc	SPP	2
Gary Cox	Southwestern Power Administration	SPP	1
James Nail	City of Independence, Missouri	SPP	3,5
Stephanie Johnson	Westar Energy, Inc	SPP	1,3,5,6
Jason Smith	Southwest Power Pool Inc	SPP	2
Jeff Knottek	City Utilities of Springfield	SPP	1,4
Greg McAuley	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
Bo Jones	Westar Energy, Inc	SPP	1,3,5,6
Tiffany Lake	Westar Energy, Inc	SPP	1,3,5,6
Sing Tay	Oklahoma Gas and Electric Co.	SPP	1,3,5,6
J.Scott Williams	City Utilities of Springfield	SPP	1,4
William Wilson	Oklahoma Gas and Electric Co.	SPP	1,3,5,6

Voter Information

Voter	Segment
Shannon Mickens	2
Entity	Region(s)
Southwest Power Pool, Inc. (RTO)	SPP

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Dixie Wells - Lower Colorado River Authority - 5 -

Group Information

Group Name: LCRA Compliance

Group Member Name	Entity	Region	Segments
Michael Shaw	LCRA	TRE	6
Teresa Cantwell	LCRA	TRE	1
Dixie Wells	LCRA	TRE	5

Voter Information

Voter	Segment
Dixie Wells	5
Entity	Region(s)
Lower Colorado River Authority	

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Rachel Coyne - Texas Reliability Entity, Inc. - 10 -

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Gene Henneberg - NV Energy - Sierra Pacific Power Co. - NA - Not Applicable - WECC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Brad Ryan - Berkshire Hathaway - PacifiCorp - 6 - WECC

Selected Answer:

Answer Comment:

Document Name:

Likes: 0

Dislikes: 0

Unofficial Comment Form

Project 2015-03 Periodic Review of System Operating Limit Standards

DO NOT use this form for submitting comments. Use the [electronic form](#) to submit comments on the draft Periodic Review Recommendations (PRRs) developed by the Periodic Review Team (PRT). The electronic comment form must be completed by **8:00 p.m. Eastern, Wednesday, June 17, 2015**.

Documents and information about this project are available on the [project page](#). If you have any questions, contact Standards Developer, [Mark Olson](#) (via email), or at (404) 446-9760.

Background Information

A periodic review of three FAC standards is being conducted to provide a recommendation to the Standards Committee (SC) on whether the standards should be affirmed, revised, or withdrawn. The standards included in this review are:

- FAC-010-3 SOL Methodology for the Planning Horizon
- FAC-011-3 SOL Methodology for the Operations Horizon
- FAC-014-2 Establish and Communicate SOLs

These standards specify responsibilities for establishing and communicating SOLs and specify elements that must be included in SOL methodologies.

The periodic review is conducted according to the NERC Standards Process Manual and includes a review of FERC directives, Paragraph 81 principles, the Independent Expert Review Project recommendations, and NERC standards for quality and content.

Questions

You do not have to answer all questions. Enter comments in simple text format. Bullets, numbers, and special formatting will not be retained.

1. The PRT is recommending retirement of FAC-010 and has provided justification in the Periodic Review Recommendation. Do you agree that the proposed retirement of FAC-010 is justified and does not create a reliability gap? If you do not agree, or if you agree but have comments or suggestions for the justification please provide your recommendation and explanation.

Yes

No

Comments:

2. The PRT is recommending initiation of a FAC standards project to revise FAC-011 and FAC-014 and has provided justification in the Periodic Review Recommendations. Do you agree with this proposal? If you do not agree, or if you agree but have comments or suggestions for the justification please explain your recommendation.

Yes

No

Comments: FAC-011 and FAC-014 should be revised to clarify that the Transmission Owner is the entity required to provide facility ratings for the facilities that it owns and to clarify the roles of the Reliability Coordinator, Planning Coordinator, Transmission Planner, and Transmission Operator with respect to receiving, communicating, and applying facility ratings to determine and apply an SOL in the planning and operations time horizon.

3. The PRT is recommending that the proposed FAC standards project develop revisions to the definition of System Operating Limit and develop a new defined term for SOL Exceedance. Justification is provided in FAC-011 and FAC-014 Periodic Review Recommendations and supporting white paper. Do you agree with this recommendation? If you do not agree, or if you agree but have comments or suggestions for the justification please provide your recommendation and explanation.

Yes

No

Comments:

4. Provide any additional comments for the PRT to consider that were not addressed in the preceding questions, if desired.

Comments: