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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information (For	Groups Submitting Group Com	ments)
Name of Group: Transmission	Group Representative: Robert E. Reed, Chairman	
Subcommittee	Representative Phone: (610f) 666-8862	
	Representative Email: reed@pjm.com	
List of Group Participants that Sup	oport These Comments:	
Name	Company	Industry Segment #
Robert E. Reed	РЈМ	
Daniel Cooper	Michigan Public Power Agency	
Ken Donohoo	ERCOT	
Michael Gildea	Duke-Energy, North America	
Francis Halpin	Bonneville Power Administration	
Tom Mallinger	Midwest ISO	
Darrick Moe	Western Area Power Administration	
Scott Moore	American Electric Power	
Bill Slater	Florida Power Corporation	
Tom Stuchlik	Western Resources	
Joseph Styslinger	Southern Company	
David Thorne	D. H. Thorne Consultants, Inc	
Robert Waldele	New York ISO	
Roman Carter	Southern Company	
John Ahr	Alleghany Power Systems	
Susan Morris	SERC	
Ed Pfeiffer	Ameren	
Ray Palmieri	ECAR	
Tom Vandervort	NERC	

Background Information:

Γ

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The

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SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

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The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

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Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the

definitions developed in conjunction with this standard do not prohibit the stratification, or subclassification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🖂 Yes
🗌 No
Comments
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
🖂 Yes
🗌 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
Ves
No No
Comments: The TS did not totally understand the "sanction methodology" or the above question. Instead of giving an inappropriate answer, the TS decided not to answer yes or no.
6. Do you agree with the proposed requirements and measurements in section 601? ⊠ Yes
No
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
⊠ Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
Ves
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
\boxtimes Yes
\square No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
X Yes
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
☐ Yes
☐ Yes ☐ No
☐ Yes
☐ Yes ☐ No Comments
Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
☐ Yes ☐ No Comments
Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: 1) The TS recommends enhancing the cell in Table 1 "A – No Contingencies , and "Contingencies" that currently reads "All Facilities in Service." Instead of "all" the TS suggests
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: 1) The TS recommends enhancing the cell in Table 1 "A – No Contingencies , and
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: 1) The TS recommends enhancing the cell in Table 1 "A – No Contingencies , and "Contingencies" that currently reads "All Facilities in Service." Instead of "all" the TS suggests language that reflects "scheduled" or "anticipated." 2) Footnote b) needs to be enhanced. Recommendations are to break the first sentence into
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: 1) The TS recommends enhancing the cell in Table 1 "A – No Contingencies , and "Contingencies" that currently reads "All Facilities in Service." Instead of "all" the TS suggests language that reflects "scheduled" or "anticipated."

13. Do you agree with the proposed compliance monitoring process in section 603?
🛛 Yes
No No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
☐ Yes
□ No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
No No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
☐ Yes ☐ No
Comments
18. Do you agree with the proposed requirements and measurements in section 605? Yes No
Comments: The TS recommends clarify the intent of Requirement 605, 1.2. Specifically "transfer capabilities shall adhere to all applicable system operating limits" is a bit ambiguous. Reviewing the "transfer capability" definition did not help clarify the intent of 1.2. – see Q. 24, below.
10. De sur a suide de sur se d'a sur l'an a sur itaning sur sin a stier (059
19. Do you agree with the proposed compliance monitoring process in section 605? Yes
No
Comments: The TS believes Requirements 605, 1.2. needs clarification before the proposed compliance monitoring process can be adequately evaluated.
20. Do you agree with the proposed levels of non-compliance in section 605?
☐ Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
— ⊠ No
Comments The TS recommends enhancing both Requirements 605 and 606 "Transfer Capabilities." Transfer capabilities should be more descriptive including differentiating ATC from TC, and a notation of how to determine ATC and TC.

22.	Do you agree with the proposed compliance monitoring process in section 60	6?
	Yes	

🛛 No

Comments The TS believes the TC Requirements need clarification before the proposed compliance monitoring process can be adequately evaluated.

23. Do you agree with the proposed levels of non-compliance in section 606?

Yes

No No

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments: 1) "Transfer Capabilities" definition needs enhancement. The first sentence should be broken into two or more sentences. The definition is vague, for example "the measure of the ability." The definition should also contain the difference between TC and ATC.

2) The TS recommends identifying the terms used in the standards that are found in the new Standards Process "Glossary of Terms" repository. The TS suggests small capital letters, highlighted letters, bold letters, italicized letters or other method of making the defined words, terms and acronyms stand out.

3) All of the definitions should e cross-referenced against the Functional Model and other standards to ensure the same term has a consistent definition.

25. Please enter any other comments you have regarding this standard in the space below.

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SAR Commenter Information (For Individual Commenters)

Name Mark A. Heimbach

Organization PPL Generation

Industry Segment # 5

Telephone 610-774-4571

E-mail maheimbach@pplweb.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
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- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Grou	
Name of Group:	Group Representat	ive:
	Representative Pho	one:
	Representative Email	l:
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segment #

Background Information:

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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
\boxtimes	Yes
	No
Со	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\square	Yes
	No
Со	mments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
🗌 No
Comments
 Are you aware of any other Regional differences that should be included in this standard? Yes
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
🖂 Yes
🗌 No
Comments
6. Do you agree with the proposed requirements and measurements in section 601? ∑ Yes □ No
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
No No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
No No
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
🛛 🖾 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
⊠ Yes ☐ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No

13. Do you agree with the proposed compliance monitoring process in section 603?
⊠ Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
🛛 Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604? Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
No No
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🛛 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
No No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
🛛 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
Comments

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SAR Commenter Information (For Groups Submitting Group Comments)			
Name of Group: Southern Co. Generation & Energy Marketing	Group Representative: <i>Roman Carter</i> Representative Phone: 205.257.6027		
	Representative Email: jrcarter@southernco.com		
List of Group Participants that Su	pport These Comments:		
Name	Company	Industry Segment #	
Roman Carter	SCGEM	5,6	
Joel Dison	SCGEM	5,6	
Tony Reed	SCGEM	5,6	
Lucius Burris	SCGEM	5,6	
David Deerman	SCGEM	5,6	
Clifford Shepard	SCGEM	5,6	
Michael Smith	SCGEM	5,6	
Lloyd Barnes	SCGEM	5,6	
Gary Miller	SCGEM	5,6	
Terry Crawley	Southern Generation	5	
Roger Green	Southern Generation	5	

Background Information:

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1		This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Γ		Yes
Х	<	No
estab	olis	mments: It is recommended that Transmission Operators have the ultimate responsibility to sh system operating limits within their local area. The RA has the responsibility to apply mits under its Reliability area to ensure the security of the system.
2	2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
Х	<	Yes
E		No
C	Col	mments
3	3.	NERC Regions have the right to ask for Regional differences for inclusion in NERC

standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

X	Yes

No

Comments

- 4. Are you aware of any other Regional differences that should be included in this standard?
- Yes
- No No

5.	Do you agree with the sanction philosophy in this standard? (No financial penalties
	for methodology violations, nominal fixed monetary penalties for failure to
	communicate values).

X Yes

No No

Comments:

6. Do you agree with the proposed requirements and measurements in section 601? X Yes

Comments: However, the Standard should not require development of additional documentation unless existing documentation is inadequate for supporting the established rating.

Additionally, the RA's need for a higher degree of accuracy on required data should not be necessary unless the current data does not fully meet modeling/assessment requirements.

7. Do you agree with the proposed compliance monitoring process in section 601?X Yes

No

Comments

8. Do you agree with the proposed levels of non-compliance in section 601?

X Yes

No No

9. Do you agree with the proposed requirements and measurements in section 602?

X Yes

No No

Comments: However, under 602 2.2.2, it is believed the RA, PA, and TOP need to allow for the facility owner's input so an achievable schedule is established. For example when generator data is requested and many generators are involved, or when generating plant calculations and engineering studies are required.

10. Do you agree with the proposed	compliance monitoring process in section 60	<mark>2?</mark>
X Yes		

No

11. Do you agree with the proposed levels of non-compliance in section 602?
X Yes
Comments
 12. Do you agree with the proposed requirements and measurements in section 603? Yes X No Comments: Under 603 1.1.1, The Transmission Owner should be added to the entities required to document the methodology used for determining system operating limits. Also, under Table I in section 1.3.1, it is recommended that the wording "All facilities in service" be replaced with "scheduled facilities in service" to eliminate any confusion that under normal operating conditions not all facilities would be in service. Finally, under the same table I, clarification of footnote (b) is needed to clear up confusion. The first sentence of the footnote is nearly 3 lines long and leads some people to be unsure about the meaning.

13. Do you agree with the proposed compliance monitoring process in section 603?
• • • • • •
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
X No
Comments: 604 1.1.1 and 604 2.2.2 should include Transmission Owner.
16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
X Yes
□ No
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
X No
Comments: The Transfer capability methodology should be documented by the Transmission Owner and Operator, and supplied to the RA for implementation. Under 605 1.2, the statemer "transfer capabilities shall adhere to all applicable system operating limits" is a bit ambiguous. Need to cross reference the definitions of Transfer Capability and Available Transfer Capability with the Functional Model.
19. Do you agree with the proposed compliance monitoring process in section 605?
X Yes
Comments
Commenta
20. Do you agree with the proposed levels of non-compliance in section 605?
X Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
X Yes
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
X Yes
🗌 No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
23. Do you agree with the proposed levels of non-compliance in section 606?
23. Do you agree with the proposed levels of non-compliance in section 606? X Yes
X Yes
X Yes

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

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SAR Commenter Information (For Gr	oups Submitting Grou	p Comments)
Name of Group: CenterPoint Energy Real Time Operations	Group Representativ	ve: R. T. Sikes
Real Time Operations	Representative Phone:	713-207-2395
	Representative Email: richard.sikes@centerpo	
List of Group Participants that Supp	ort These Comments:	
Name	Company	Industry Segment #
John Jonte		
Wayne Kemper		
Glenn Hemperley		
Brad Calhoun		

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

e I a	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
T Y	es
🖂 N	o
	ments This should be a coordinated effort between the Authorities and the Transmission .We are not sure this is clear.
	Do you agree that identifying and communicating all system operating limits is within he scope of this standard and is necessary for reliability?
X Y	es
🗌 N	o
Com	ments

3.	NERC Regions have the right to ask for Regional differences for inclusion in NERC
	standards. Such differences would apply only to the listed Region and would become
	an enforceable part of the NERC standard only if approved by the industry. NPCC
	has requested a Regional difference in section 603. Do you think NPCC's Regional
	difference should be included in this standard?

\boxtimes	Yes

🗌 No

- 4. Are you aware of any other Regional differences that should be included in this standard?
- Yes
- 🛛 No
- Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
🖂 Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
No No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
🖂 Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
🛛 🖾 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
⊠ Yes ☐ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No

X Yes	ou agree with the proposed compliance monitoring process in section 603?
🛛 No	
Commen helpful.	ts We are not clear on ratings versus limits. Some possible clarification would be
14. Do yo	ou agree with the proposed levels of non-compliance in section 603?
🛛 Yes	
🗌 No	
Commen	ts
15. Do y	ou agree with the proposed requirements and measurements in section 604?
🛛 Yes	
🗌 No	
Commen	ts
	ou agree with the proposed compliance monitoring process in section 604?
🛛 Yes	
🗌 No	
Commen	ts

17. Do you	agree with the proposed levels of non-compliance in section 604?
🛛 Yes	
🗌 No	
Comments	
	agree with the proposed requirements and measurements in section 605?
⊠ Yes □ No	
Comments	
	agree with the proposed compliance monitoring process in section 605?
⊠ Yes	
🗌 No	
Comments	
20 Do you	gree with the proposed levels of non-compliance in section 605?
20. Do you :	ngree with the proposed levels of non-compliance in section 605?
20. Do you a	gree with the proposed levels of non-compliance in section 605?
	gree with the proposed levels of non-compliance in section 605?
⊠ Yes	ngree with the proposed levels of non-compliance in section 605?
⊠ Yes □ No	gree with the proposed levels of non-compliance in section 605?
Yes No Comments 21. Do you	agree with the proposed levels of non-compliance in section 605?
 ☑ Yes ☑ No Comments 21. Do you ☑ Yes 	
Yes No Comments 21. Do you	
 ☑ Yes ☑ No Comments 21. Do you ☑ Yes ☑ Yes ☑ No 	

22. Do you agree with the proposed compliance monitoring process in section 606? \square Yes
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
No
Comments
24. What additional clarification, details, or modifications to this standard are necessary
before it can be brought to ballot?
CommonteWe are not sure there is a clear distinction between retings of equipment and
CommentsWe are not sure there is a clear distinction between ratings of equipment and operational limits.

25. Please enter any other comments you have regarding this standard in the space below.

Comments We believe that operation in regards to limts, real-time, is a coordinated effort between Relaibility Authority and Transmission Operator.

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Alan Johnson

Organization Mirant Americas Energy Marketing

Industry Segment # 6

Telephone (678)579-3108

E-mail alan.r.johnson@mirant.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information (For Groups Submitting Group Comments)				
Name of Group:	Group Representat	Group Representative:		
	Representative Phone:			
	Representative Emai			
List of Group Participants t	hat Support These Comments:			
Name	Company	Industry Segment #		

Background Information:

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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
	No
Со	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\boxtimes	Yes
	No
Со	mments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?	
🖂 No	
Comments It seems that NPCC has requested a higher level of reliability by setting requirements for operating under multiple contingencies. Believe NPCC should have the ability to do this, subject to membership approval. However, this does not appear to be a "Regional Difference" in the true spirit of the phrase. As such, it would be cleaner to not include it as part of he NERC standard and allow NPCC to implement regionally.	
4. Are you aware of any other Regional differences that should be included in this standard?	
No	
Comments	

5.	Do you agree with the sanction philosophy in this standard? (No financial penalties
	for methodology violations, nominal fixed monetary penalties for failure to
	communicate values).

Yes

🛛 No

Comments Until legislation is passed enabling NERC as a reliability organization, Mirant does not believe that NERC should have the ability to assess financial penalties under this standard. However, if financial penalties are to be assessed, they should be assessed for methodology violations as well because use of an incorrect methodology could potentially lead to reliability problems. For example, suppose an entity uses a non-compliant methodology to determine a system limit, which results in the system limit being too high, resulting in the failure of a system component. Isn't this a reliability concern?

6. Do you agree with the proposed requirements and measurements in section 601? ⊠ Yes

No

Comments Believe that the requirement should be for on-site inspection of methodology requirements. In other words, the TO's and GO's should not be required to provide copies of methodology documentation to the compliance monitor, RA or PA. Is this the intent here? Also, in section 1.3, suggest that the list of equipment types be placed in a parenthetical to improve the sentence.

7. Do you agree with the proposed compliance monitoring process in section 601? ☐ Yes

🖂 No

Comments Maybe okay with this section, depending on what is meant by the phrase "...information submittal to the compliance monitor". Are we talking about making documentation available to the compliance monitor for on-site inspection, or are we talking about providing copies of the methodology documentation to the compliance monitor? Opposed to the latter.

8. Do you agree with the proposed levels of non-compliance in section 601?
🛛 Yes
🗌 No
Comments

9.	Do you agree with the proposed requirements and measurements in section 6	<mark>602?</mark>
	Ves	

Comments In section 1.2, suggest that a phrase such as "upon request" or "in accordance with their published schedules" be tacked on to the end of the sentence. This will serves to provide some clarity regarding the obligation. Along the same lines, would suggest adding a phrase such as "as documented in procedures" to the end of the sentence in section 2.2.

10. Do you agree with the proposed compliance monitoring process in section 602? ⊠ Yes

No

Comments For clarity, suggest inserting "applicable" between "the" and "reliability" in the first part of section 4.3

11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
□ No
Comments
12. Do you agree with the proposed requirements and measurements in section 603?
🛛 Yes
□ No
Comments

13. Do you agree with the proposed compliance monitoring process in section 603?
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
Yes
No
Comments This may be okay with some language changes.
 Suggest revising section 5.1 to read: "Level one: The system operating limits methodology does not yield system operating limits in compliance with Table I or in the case of NPCC entities, Table IA."
• Suggest revising section 5.2 to read: " Level two: The system operating limits methodology does not comply with section 603.1.2"
• Suggest revising section 5.3 to read: "Level three: The system operating limits methodology i) does not yield system operating limits in compliance with Table I or in the case of NPCC entities, Table IA; or ii) does not comply with section 603.1.2; and iii) does not contain any two items listed in section 603.1.4.
15. Do you agree with the proposed requirements and measurements in section 604? Yes
Comments What is the intent of the word "associated" as used in section 1.2? Are we talking about TOPs, PAs, TPs and RAs that are adjacent? Also, would like to see sections 2.2 and 2.3 modified to require the provision of system operating limits to generator and transmission owners upon request. These entities should have access to the data for use in analyzing the operation of their existing assets and for the planning of new assets.

16. Do you agree with the proposed compliance monitoring process in section 604?
⊠ Yes
Comments
17. Do you agree with the proposed levels of non-compliance in section 604?
☐ Yes
⊠ No
Comments Would like to see level two modified to recognize generator and transmission
owners.
18. Do you agree with the proposed requirements and measurements in section 605?
No No
Comments There should only be one standard methodology for determining transfer capability. As presently written, it appears that section 1.1 would enable each RA and PA to create and implement its own methodology. If this is indeed the intent, then in section 2.1, the methodologies should be made available to the market participants.
19. Do you agree with the proposed compliance monitoring process in section 605?
\boxtimes Yes
Comments.

20. Do you agree with the proposed levels of non-compliance in section 605?
🗌 Yes
🖂 No
Comments In section 5.4, generator owners, transmission owners and transmission operators should be included.
21. Do you agree with the proposed requirements and measurements in section 606? Yes
□ No
Comments
22. Do you agree with the proposed compliance monitoring process in section 606?
22. Do you agree with the proposed compliance monitoring process in section 606? Yes
☐ Yes
☐ Yes ⊠ No
☐ Yes ⊠ No
☐ Yes ⊠ No
 ☐ Yes ☑ No Comments Suggest section 4.3 be modified to include the generator owner function.
☐ Yes ⊠ No
 ☐ Yes ☑ No Comments Suggest section 4.3 be modified to include the generator owner function. 23. Do you agree with the proposed levels of non-compliance in section 606?
 ☐ Yes ☑ No Comments Suggest section 4.3 be modified to include the generator owner function. 23. Do you agree with the proposed levels of non-compliance in section 606? ☐ Yes
 ☐ Yes ☑ No Comments Suggest section 4.3 be modified to include the generator owner function. 23. Do you agree with the proposed levels of non-compliance in section 606?

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

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- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: SERC Planning Standards Working Group (PSWG)	Group Representative: Bob Chairman)	Jones (PSWG	
	Representative Phone: (205) 257-6148		
	Representative Email: rajone	tative Email: rajones@southernco.com	
List of Group Participants that Sup	port These Comments:		
Name	Company	Industry Segment	
Clay Young	South Carolina Electric & Gas	3	
Byron Stewart	Tennessee Valley Authority	1	
David Weekley	Municipal Electric Authority of Georgia	1	
Brian Moss	Duke Power	1	
Darrell Pace	Alabama Electric Cooperative	1	
Bob Jones	Southern Company Services	1	
Kham Vongkhamchanh	Entergy	1	
Pat Huntley	SERC	2	

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Yes
🖂 No
Comments: Establishment of the Operating Limits are the joint responsibility of the RA, PA, and the TO in concert. It appears that question 1 is inconsistent with 604.1.1.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
🗌 No
Comments: However, if our recommendation in question # 12 below is adopted inclusion of

specific regional differences would no longer be needed.

- **4.** Are you aware of any other Regional differences that should be included in this standard?
- Yes
- 🔀 No

Comments: However, if our comment in question # 12 below is not accepted, SERC may consider requesting a Regional difference.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments:
1. The standard should explicitly state that the methodology must be technically sound (i.e., should conform to good utility practice). Section 601.1.3 should be changed to stop with "that comprise the facility are determined." A new section (601.1.4) should read: "The methodology required in 601.1.1 shall be technically correct (conform to good utility practice) and reference industry rating practices or other standards (e.g., IEEE, ANSI, CSA)."
2. The terms "disconnecting devices" in 601.1.3 should be changed to "terminal equipment" to encompass not only disconnecting devices, but also CTs, PTs, protection, wave traps, etc. as listed on page 5 of the SAR.
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
\square No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments: However, section 601.1.4 (proposed in our comment in question 6) should be incorporated into the Levels of Non-Compliance.

9. Do you agree with the proposed requirements and measurements in section 602?
Y 20 you agree whith the proposed requirements and measurements in section 002.
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes □ No
⊠ Yes
☑ Yes ☑ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes

13. Do you agree with the proposed compliance monitoring process in section 603?
Yes
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
□ No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
□ No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
\square No
Comments
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
⊠ No
Comments: A new section (605.1.4) should read: " The methodology required in 605.1.1 shall conform to good utility practice (e.g., NERC Reference Document: <u>Transmission</u> <u>Transfer Capability—May 1995)</u> ."
19. Do you agree with the proposed compliance monitoring process in section 605?
\boxtimes Yes
🗌 No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
20. Do you agree with the proposed levels of non-compliance in section 005.
Comments: However, section 605.1.4 (proposed in our comment in question 18) should be incorporated into the Levels of Non-Compliance.

21. Do you agree with the proposed requirements and measurements in section 606?
No
Comments
22. Do you agree with the proposed compliance monitoring process in section 606?
🛛 Yes
🗌 No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
25. Do you agree with the proposed levels of non-comphance in section ood.
🛛 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary
before it can be brought to ballot?
Comments:
1. Recommend that a definition be added for "performance-reset period."
2. Footnote "d" to Table I on page 7 is not correct. It appears that the wrong footnote was copied from Table I of NERC Planning Standards I.A. The correct footnote should be the
same as footnote "e" to the NPCC Table IA which reads: "Normal clearing is when the
protection system operates as designed and the fault is cleared in the time normally expected
with proper functioning of the installed protection systems. Delayed clearing of a fault is
due to failure of any protection system component such as a relay, circuit breaker, or current transformer (CT), and not because of an intentional design delay."

3. The Sanctions Table on page 18 needs further clarification. Examples of its application may be useful.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: SERC Operations Planning Subcommittee (OPS)	Group Representative: Don Reichenbach (OPS Chairman)		
	Representative Phone: (205) 382-3146 Representative Email: dereiche@duke-energy.com		
List of Group Participants that Supp	port These Comments:		
Name	Company	Industry Segment	
Carter Edge	Southeastern Power Administration	4 & 5	
William Gaither	South Carolina Public Service Authority	1	
Mike Miller	Southern company	1	
Roger Brand	Municipal Electric Authority of Georgia	1	
Phil Creech	Progress Energy - Carolinas	1	
Gene Delk	South Carolina Electric and Gas	1	
Al McMeekin	South Carolina Electric and Gas	1	
Greg Ott	Alcoa-Yadkin	1	
Doug Newbauer	Georgia System Operations	1	
Mike Clements	Tennessee Valley Authority	1	
Don Reichenbach	Duke Energy	1	
Lynna Estep	SERC	2	
Mark Creech	TVA	1	

Background Information:

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General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

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Relationship with "Operate Within Limits" Standard:

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Yes
🖂 No
Comments: Establishment of the Operating Limits are the joint responsibility of the RA, PA, and the TO in concert. It appears that question 1 is inconsistent with 604.1.1.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
🗌 No
Comments: However, if our recommendation in question # 12 below is adopted inclusion of

specific regional differences would no longer be needed.

- **4.** Are you aware of any other Regional differences that should be included in this standard?
- Yes
- 🔀 No

Comments: However, if our comment in question # 12 below is not accepted, SERC may consider requesting a Regional difference.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments:
1. The standard should explicitly state that the methodology must be technically sound (i.e., should conform to good utility practice). Section 601.1.3 should be changed to stop with "that comprise the facility are determined." A new section (601.1.4) should read: "The methodology required in 601.1.1 shall be technically correct (conform to good utility practice) and reference industry rating practices or other standards (e.g., IEEE, ANSI, CSA)."
2. The terms "disconnecting devices" in 601.1.3 should be changed to "terminal equipment" to encompass not only disconnecting devices, but also CTs, PTs, protection, wave traps, etc. as listed on page 5 of the SAR.
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
\square No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments: However, section 601.1.4 (proposed in our comment in question 6) should be incorporated into the Levels of Non-Compliance.

9. Do you agree with the proposed requirements and measurements in section 602?
⊠ Yes
□ No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
⊠ Yes
□ No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes □ No
⊠ Yes
☑ Yes ☑ No Comments
⊠ Yes □ No
Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes
 Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? Yes No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: Wording needs to be included that the level of performance specified is a minimum and that more stringent criteria for individual transmission providers or regions are permissible.
 ☑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: Wording needs to be included that the level of performance specified is a minimum and that more stringent criteria for individual transmission providers or regions are permissible. Many of the Transmission Providers in SERC plan beyond N-1 criteria. The OPS feels that
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: Wording needs to be included that the level of performance specified is a minimum and that more stringent criteria for individual transmission providers or regions are permissible.

13. Do you agree with the proposed compliance monitoring process in section 603?
Yes
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
□ No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
□ No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
\square No
Comments
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
⊠ No
Comments: A new section (605.1.4) should read: " The methodology required in 605.1.1 shall conform to good utility practice (e.g., NERC Reference Document: <u>Transmission</u> <u>Transfer Capability—May 1995)</u> ."
19. Do you agree with the proposed compliance monitoring process in section 605?
\boxtimes Yes
🗌 No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
20. Do you agree with the proposed levels of non-compliance in section 005.
Comments: However, section 605.1.4 (proposed in our comment in question 18) should be incorporated into the Levels of Non-Compliance.

21. Do you agree with the proposed requirements and measurements in section 606?
No No
Comments
22. Do you agree with the proposed compliance monitoring process in section 606?
🛛 Yes
🗌 No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
25. Do you agree with the proposed levels of non-comphance in section ood.
🛛 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary
before it can be brought to ballot?
Comments:
1. Recommend that a definition be added for "performance-reset period."
2. Footnote "d" to Table I on page 7 is not correct. It appears that the wrong footnote was
copied from Table I of NERC Planning Standards I.A. The correct footnote should be the
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3. The Sanctions Table on page 18 needs further clarification. Examples of its application may be useful.

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SAR Commenter Information (For Individual Commenters)

Name Robert Grover

Organization PPL Electric Utilities

Industry Segment # 3

Telephone 484-634-3597

E-mail rdgrover@pplweb.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:				
Representative Email: List of Group Participants that Support These Comments:						
Name	Company	Industry Segmen #				

Background Information:

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esta Hav autl	s standard assumes that the reliability authority has the ultimate responsibility to blish system operating limits and relies upon the transmission operator for input. Ye the roles and responsibilities of transmission operators versus reliability norities in determining system operating limits been properly characterized in this adard?
🖂 Yes	
🗌 No	
Comme	nts
	you agree that identifying and communicating all system operating limits is within scope of this standard and is necessary for reliability?
Comme	nts
a limit, becaus the sys	ue that may arise relates to the word "all". If a condition arises that necessitated but none was calculated either because the methodology was inadequate or e the conditions were 'not credible', would the RA be in non-compliance? What if tem was operated to avoid the problem occurring – now you have a non-event on ad max credible condition, would the RA be non-compliant?
	e Team mean "all" SOLs? or all "credible' SOLs? Or all SOLs under mandated onditions (this would leave the conditions subject to a Region or an RRO)

3.	NERC Regions have the right to ask for Regional differences for inclusion in NERC
	standards. Such differences would apply only to the listed Region and would become
	an enforceable part of the NERC standard only if approved by the industry. NPCC
	has requested a Regional difference in section 603. Do you think NPCC's Regional
	difference should be included in this standard?

🔀 Yes

🗌 No

Comments

4. Are you aware of any other Regional differences that should be included in this standard?

🗌 Yes

🛛 No

Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
🗋 No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
The issue with this requirement is should this be a Standard or should it be included in the Certification requirements for an RA? As a Certification requirement, an applicant for RA certification would be required to have the methodology in-hand before the applicant was allowed to be an RA. As a standard the RA could operate without even having a method for computing limits.
7. Do you agree with the proposed compliance monitoring process in section 601? ⊠ Yes
Comments
Comments
Comments
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
8. Do you agree with the proposed levels of non-compliance in section 601?
 8. Do you agree with the proposed levels of non-compliance in section 601? Yes
8. Do you agree with the proposed levels of non-compliance in section 601?

9. Do you agree with the proposed requirements and measurements in section 602?
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
No No
Comments
Will Compliance Monitors really look at how rating computations relate to the documented methodology?
11. Do you agree with the propaged levels of non-compliance in section (022
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
☐ Yes ☐ No
☐ Yes
☐ Yes ☐ No Comments
☐ Yes ☐ No
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes No Comments
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes ☐ No

-	ou agree with the proposed compliance monitoring process in section 603?
⊠ Yes	
🗌 No	
Comment	S
14 Do vo	ou agree with the proposed levels of non-compliance in section 603?
14. D0 y0	a agree with the proposed revels of non-compliance in section 005.
No No	
Comment	S
15. Do vo	we agree with the proposed requirements and measurements in section (0.12
\boxtimes Yes	ou agree with the proposed requirements and measurements in section 604?
No	
Comment	S
The wordi	ing in Requirement 604.1.2 can be read that RAs must provide information to either:
	ansmission Operators and Planning Authorities (which is not possible) OR
	vithin the respective RAs area (which is not allowed)
	A and a Transmission Operator can have more than 1 RA, the RA and TSP are
restricted sentences	to one RA. To be precise you may want to separate Requirement 1.2 into two
16. Do y o ⊠ Yes	ou agree with the proposed compliance monitoring process in section 604?
Comment	S

17. Do you agree with the proposed levels of non-compliance in section	n 604?
☐ Yes	
🗌 No	
Comments	
18. Do you agree with the proposed requirements and measurements	in goation (052
18. Do you agree with the proposed requirements and measurements Yes	In section 005?
□ □ No	
Comments	
19. Do you agree with the proposed compliance monitoring process in	section 605?
⊠ Yes	
□ No	
Comments	
20. Do you agree with the proposed levels of non-compliance in section	n 605?
Ves	
Comments	
21. Do you agree with the proposed requirements and measurements	in section 606?
No No	
Comments	

22. Do you agree with the proposed compliance monitoring process in section 606?
No No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
Comments

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Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

Methodologies, Procedures and Processes may be better handled within the Certification Process than with the Standards Process. The reason being is that such documentation should be created before any applicant is allowed to operate within NERC.

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SAR Commenter Information (For Individual Commenters)

Name John Horakh

Organization MAAC

Industry Segment # 2

Telephone 609-625-6014

E-mail john.horakh@conectiv.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
	No
Co	mments
ХĽ	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?] Yes No
Co	mments
	s, as long as "all" means all limits determined by methodology bounded by the ormal and Contingency Conditions" table included in this Standard.
3.	NERC Regions have the right to ask for Regional differences for inclusion in NERC

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

\mathbf{X}	Y	es	

🗌 No

Comments

- **4.** Are you aware of any other Regional differences that should be included in this standard?
- Yes

🖂 No

Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
□ No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
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Yes
□ No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
8. Do you agree with the proposed levels of non-compliance in section 601?
X Yes

9. Do you agree with the proposed requirements and measurements in section 602?
\boxtimes Yes
□ No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
X Yes
No No
Comments
Will Compliance Monitors really look at how rating computations relate to the documented methodology?
11. Do you agree with the proposed levels of non-compliance in section 602?
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X Yes
X Yes No Comments
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X ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes ☐ No
X ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes ☐ No Comments Does this allow that the methodology used by the RA can be different than the methodology used by the PA? Regarding the Functional Model, Transmission Operators really can not be held responsible for
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🖂 Yes
Comments Note d) on Page 7 does not make sense for Single Pole Block. The Cascading
Outages Column on Page 9 has note f), should be note c). Note f) not needed.
14. Do you agree with the proposed levels of non-compliance in section 603?
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
Comments
The wording in Requirement 604.1.2 can be read that RAs must provide information to either:
1. All Transmission Operators and Planning Authorities (which is not possible) OR
2. RAs within the respective RAs area (which is not allowed)
While a PA and a Transmission Operator can have more than 1 RA, the RA and TSP are
restricted to one RA. To be precise you may want to separate Requirement 1.2 into two
sentences.
16. Do you agree with the proposed compliance monitoring process in section 604?
\boxtimes Yes
Comments

	agree with the proposed levels of non-compliance in section 604?
X Yes	
🗌 No	
Comments	
	agree with the proposed requirements and measurements in section 605?
Yes	
🗌 No	
	Does this allow that the methodology used by the RA can be different than the gy used by the PA?
<mark>19. Do you</mark>	agree with the proposed compliance monitoring process in section 605?
🛛 Yes	
🗌 No	
Comments	
20. Do you	agree with the proposed levels of non-compliance in section 605?
20. Do you	agree with the proposed levels of non-compliance in section 605?
20. Do you X□ Yes	agree with the proposed levels of non-compliance in section 605?
	agree with the proposed levels of non-compliance in section 605?
X Yes	agree with the proposed levels of non-compliance in section 605?
X Yes	agree with the proposed levels of non-compliance in section 605?
X Yes No Comments 21. Do you	agree with the proposed levels of non-compliance in section 605?
X Yes No Comments 21. Do you X Yes	
X Yes No Comments 21. Do you	
X Yes No Comments 21. Do you X Yes	

22. Do you agree with the proposed compliance monitoring process in section 606? Yes

No No

Comments In 4.4.1, replace "which" with "that".

23. Do you agree with the proposed levels of non-compliance in section 606?

Х	Yes
~	100

No No

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name David Thorne

Organization Pepco

Industry Segment # 1

Telephone 301-469-5211

E-mail dkthorne@pepco.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Grou		
Name of Group:	Group Representative:		
	Representative Pho	one:	
	Representative Email	l:	
List of Group Participants t	hat Support These Comments:		
Name	Company	Industry Segment #	

Background Information:

Notes to Industry Commenters:

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General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
	Νο
Cor	nments
	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes No
Cor	nments
a lii bec the	e issue that may arise relates to the word "all". If a condition arises that necessitated mit, but none was calculated either because the methodology was inadequate or ause the conditions were 'not credible', would the RA be in non-compliance? What if system was operated to avoid the problem occurring – now you have a non-event on eyond max credible condition, would the RA be non-compliant?
	es the Team mean "all" SOLs? or all "credible' SOLs? Or all SOLs under mandated dy conditions (this would leave the conditions subject to a Region or an RRO)

3.	NERC Regions have the right to ask for Regional differences for inclusion in NERC
	standards. Such differences would apply only to the listed Region and would become
	an enforceable part of the NERC standard only if approved by the industry. NPCC
	has requested a Regional difference in section 603. Do you think NPCC's Regional
	difference should be included in this standard?

🛛 Yes

🗌 No

Comments

4. Are you aware of any other Regional differences that should be included in this standard?

🗌 Yes

🛛 No

Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
□ No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments
The issue with this requirement is should this be a Standard or should it be included in the Certification requirements for an RA? As a Certification requirement, an applicant for RA certification would be required to have the methodology in-hand before the applicant was allowed to be an RA. As a standard the RA could operate without even having a method for computing limits.
7. Do you agree with the proposed compliance monitoring process in section 601? ⊠ Yes
Comments
Comments
Comments
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
8. Do you agree with the proposed levels of non-compliance in section 601?
 8. Do you agree with the proposed levels of non-compliance in section 601? Yes
8. Do you agree with the proposed levels of non-compliance in section 601?

9. Do you agree with the proposed requirements and measurements in section 602?
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
No No
Comments
Will Compliance Monitors really look at how rating computations relate to the documented methodology?
11. Do you agree with the propaged levels of non-compliance in section (022
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
☐ Yes ☐ No
☐ Yes
☐ Yes ☐ No Comments
☐ Yes ☐ No
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes No Comments
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes ☐ No

-	ou agree with the proposed compliance monitoring process in section 603?
⊠ Yes	
🗌 No	
Comment	S
14 Do vo	ou agree with the proposed levels of non-compliance in section 603?
14. D0 y0	a agree with the proposed revels of non-compliance in section 005.
No No	
Comment	S
15. Do vo	we agree with the proposed requirements and measurements in section (0.12
\boxtimes Yes	ou agree with the proposed requirements and measurements in section 604?
No	
Comment	S
The wordi	ing in Requirement 604.1.2 can be read that RAs must provide information to either:
	ansmission Operators and Planning Authorities (which is not possible) OR
	vithin the respective RAs area (which is not allowed)
	A and a Transmission Operator can have more than 1 RA, the RA and TSP are
restricted sentences	to one RA. To be precise you may want to separate Requirement 1.2 into two
16. Do y o ⊠ Yes	ou agree with the proposed compliance monitoring process in section 604?
Comment	S

17. Do you agree with the proposed levels of non-compliance in section	n 604?
☐ Yes	
🗌 No	
Comments	
18. Do you agree with the proposed requirements and measurements	in goation (052
18. Do you agree with the proposed requirements and measurements Yes	In section 005?
□ □ No	
Comments	
19. Do you agree with the proposed compliance monitoring process in	section 605?
⊠ Yes	
□ No	
Comments	
20. Do you agree with the proposed levels of non-compliance in section	n 605?
Ves	
Comments	
21. Do you agree with the proposed requirements and measurements	in section 606?
No No	
Comments	

22. Do you agree with the proposed compliance monitoring process in section 606?
No No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information (For Gr	· · · ·	•	
Name of Group: Southern Company	Group Representative: Tod	ive: Todd Lucas	
Transmission Planning	Representative Phone: 404-506-3564 Representative Email: telucas@southernco.com		
List of Group Participants that Supp	ort These Comments:	1	
Name	Company	Industry Segment	
Todd Lucas	Southern Co	1	
Joe Payne	Mississippi Power Company	3	
Travis Koval	Southern Co	1	
Bill Pope	Gulf Power Company	3	
John Clark	Southern Co	1	
David Johnson	Savannah Electric	3	

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Sanctions:

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🗌 Yes
🖂 No
Comments: It is not clear that the transmission operator will not have responsibility for establishing system operating limits. The phrase "for the areas for which they are responsible" appears several times. We assume this is a reference to the functional model responsibilities. We believe it would be helpful if these areas of responsibility were re-stated in this standard, making it clear what these areas are for each entity. We believe that there are certain system operating limits that the Transmission Operator will have the ultimate responsibility to establish.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
\square No
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
No
Comments We do not currently know of any Regional differences at this time. However, during the initial phasing in of standards each region may find adopting or developing a different approach provides increased reliability. Therefore, we believe that differences should be considered as they are identified in the future.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
Comments: The approach should be allowed to continue unless and until it is demonstrated that philosophy is not effective.
6. Do you agree with the proposed requirements and measurements in section 601? Yes
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
🖂 Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
\boxtimes Yes
\square No
Comments
10. Do non a great with the managed compliance manifesting process in costion (022
10. Do you agree with the proposed compliance monitoring process in section 602? \square Yes
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
🖂 Yes
Comments: In 602 5.2., the phrase "upon request" should be removed. The measures require
that the information be provided on a schedule. Having "upon request" and "with their respective schedules" in the same sentence is ambiguous.
12. Do you agree with the proposed requirements and measurements in section 603?
🖂 No
Comments: The phrase "for the areas for which they are responsible" appears several times. We assume this is a reference to the functional model responsibilities. We believe it would be helpful if these areas of responsibility were re-stated in this standard, making it clear what these areas are for each entity. We also believe that it should be stated that the level of performance specified is a minimum and that more stringent criteria for individual transmission
providers or regions are permissible.

13. Do you agree with the proposed compliance monitoring process in section 603?
\boxtimes Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
No
Comments: The phrase "for the areas for which they are responsible" appears several times. We assume this is a reference to the functional model responsibilities. We believe it would be
helpful if these areas of responsibility were re-stated in this standard, making it clear what
these areas are for each entity.
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?		
⊠ Yes		
🗌 No		
Comments: In 604 5.2., the beginning of the sentence should read "All requested system operating limits were not provided to the transmission service provider" to be consistent with 602 5.1. The measures require that the information be provided on a schedule. Having "upon request" and "with their respective schedules" in the same sentence is ambiguous.		
18. Do you agree with the proposed requirements and measurements in section 605?		
☐ Yes ⊠ No		
Comments: Transfer Capability Methodology should be jointly developed and documented with the transmission operator, with the Reliability Authority responsible for implementation.		
19. Do you agree with the proposed compliance monitoring process in section 605?		
⊠ Yes □ No		
Comments		
20. Do you agree with the proposed levels of non-compliance in section 605?		
⊠ Yes		

	Do you agree with the proposed requirements and measurements in section 606?
	Yes
Ш	No
trai	mments: We agree that the Reliability Authority and Planning Authority should establish the nsfer capabilities as long as the methodology was jointly developed with the transmission erator. (See comment to question 18.)
22.	Do you agree with the proposed compliance monitoring process in section 606?
	Yes
	No
Со	mments
23.	Do you agree with the proposed levels of non-compliance in section 606?
_	Yes
	No
Со	mments
24.	What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
	before it can be brought to banot:
Co	mmenter This standard should not be brought to ballot until the Planning Authority is

Comments: This standard should not be brought to ballot until the Planning Authority is defined in the Functional Model since the Planning Authority is assigned requirements in this standard.

25. Please enter any other comments you have regarding this standard in the space below.

Comments: The phrase "for the areas for which they are responsible" appears several times in this standard. We assume this is a reference to the responsibilities assigned in the functional model definitions. We believe it would be helpful if the areas of responsibility for each entity that are covered by this standard were re-stated within the standard.

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SAR Commenter Information (For Individual Commenters)

Name Lee Westbrook

Organization Oncor

Industry Segment # 1

Telephone 214.743.6823

E-mail lwestbrook@oncorgroup.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
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- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representative: Representative Phone:				
	Representative Email:				
List of Group Participants that Support These Comments:					
Name	Company	Industry Segment #			

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Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
X Yes
Comments Transmission Operator input is dependent upon its receipt of dependable data and other information from equipment owners, and the responsibility of the Transmission Operator must be limited by the dependability of the information it receives.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? X Yes
Comments Identification and Communication of limits that vary continually in real time should be on a "best efforts" basis, and may include as little as a description of the real-time determination process.
 3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No
Comments Regional differences are more properly applied to exemptions from all or parts of
NERC Standards than to extensions of those Standards.
 Are you aware of any other Regional differences that should be included in this standard? Yes
X 🗌 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
X Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
X Yes
\square No
Comments
Commonia

9. Do you agree with the proposed requirements and measurements in section 602?
X Yes
□ No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
X Yes
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
X Yes
X Yes
X Yes
X Yes No Comments
X Yes X Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
X□ Yes □ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? X□ Yes

13. Do you agree with the proposed compliance monitoring process in section 603?
X Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
X Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
X Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes
□ No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
X Yes No Comments
18. Do you agree with the proposed requirements and measurements in section 605? □ Yes X□ No Comments The Standard should make clear that, if no transfer capability values are requested or used by a reliability authority or planning authority, compliance is deemed to be demonstrated without submission of a methodology to the compliance monitor.
19. Do you agree with the proposed compliance monitoring process in section 605?
X Yes No Comments See Comments on #18, above.
20. Do you agree with the proposed levels of non-compliance in section 605?
X Yes No Comments See Comments on #18, above.
21. Do you agree with the proposed requirements and measurements in section 606? X Yes No Comments

	you agree with the proposed compliance monitoring process in section 606?
X Yes	
🗌 No	
Comme	nts
23. Do	you agree with the proposed levels of non-compliance in section 606?
X Yes	
🗌 No	
Comme	nts
24. Wh	at additional clarification, details, or modifications to this standard are neces
	ore it can be brought to ballot?
Comme	nts

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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SAR Commenter Information (For Individual Commenters)

Name Darrel W. Richardson

Organization Illinois Power Company

Industry Segment # 1 & 3

Telephone 217.424.6536

E-mail

m

darrel_richardson@illinoispower.co

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:		
List of Group Participants t	Representative Emai hat Support These Comments:			
Name	Company	Industry Segmen #		

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
X Yes
🗌 No
Comments
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X Yes
No No
Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
X Yes
🗌 No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
Yes
X No

Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).	
X No	
Comments It would seem that absence any penalties for methodology violations there would be little incentive to comply with the requirement.	
6. Do you agree with the proposed requirements and measurements in section 601? X Yes	
□ No	
Comments	
7. Do you agree with the proposed compliance monitoring process in section 601?	
X Yes	
🗌 No	
Comments	
	_

8. Do you agree with the proposed levels of non-compliance in section 601?

X Yes

No No

Comments

9. Do you agree with the proposed requirements and measurements in section 602?

	X Yes
	Comments
	10. Do you agree with the proposed compliance monitoring process in section 602?
	X Yes
	Comments
	11. Do you agree with the proposed levels of non-compliance in section 602?
~	X No
	mments There should not be any difference between a new facility or an existing facility. Levels & #2 (5.1 & 5.2) should be combined and have only 3 levels of non-compliance.
	12. Do you agree with the proposed requirements and measurements in section 603?
	X No
	Comments Their needs to be more clarification. The table and subscripts are confusing. For example, we can't ascertain whether the "single pole block" is addressing DC lines or multiple circuit towers.

13. Do you agree with the proposed compliance monitoring process in section 603?
X Yes
No No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
Yes
X No
Comments This section also seems to be difficult to follow. However, it would appear to us
that a Level 1 should be for 603.1.4, Level 2 for 603.1.3 and Level 3 for 603.1.2 or asome combination thereof.
15. Do you agree with the proposed requirements and measurements in section 604?
X Yes
No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes
No No
Comments

17.]	17. Do you agree with the proposed levels of non-compliance in section 604?	
X Ye	2S	
	ю	
Com	iments	
18.]	Do you agree with the proposed requirements and measurements in section 605?	
X Ye	25	
	lo	
Corr	iments	
19.	Do you agree with the proposed compliance monitoring process in section 605?	
XYe		
	lo	
Com	iments	
20.]	Do you agree with the proposed levels of non-compliance in section 605?	
X Ye	es	
	lo	
Com	iments	
21.]	Do you agree with the proposed requirements and measurements in section 606?	
X Ye		
	lo	
Corr	iments	

22. Do you agree with the proposed compliance monitoring process in section 606?
X Yes
🗌 No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
X Yes

🗌 No

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Ed Davis

Organization Entergy Services

Industry Segment # 1

Telephone 504-310-5884

E-mail edavis@entergy.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:
List of Group Participants t	Representative Emai hat Support These Comments:	
Name	Company	Industry Segment #

Background Information:

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?

Yes

🛛 No

Comments: We believe the Transmission Owner has the ultimate responsibility to establish equipment operating limits which is a result of its fiduciary responsibility for its owned facilities. The Transmission Owner has ultimate responsibility and liability for owning, maintaining and operating its facilities to protect its stockholders' and lending institutions' investments. The Transmission Owner, then, is ultimately responsible for establishing system operating limits based on thermal ratings. While the Transmission Owner may voluntarily contract to have some other entity (function) perform some of the operations needed to ensure that fiduciary responsibility, it is the Transmission Owner that has ultimate responsibility. Neither NERC standards nor the Functional Model can allocate or transfer that responsibility to the RAs. Under state law, Transmission Owners must typically obtain state regulatory approval to transfer control or operational authority over jurisdictional facilities to third parties. Forcing Transmission Owners to allow a third party, such as the RA, to cede ultimate responsibility for establishing equipment limits could trigger the need for state regulatory approvals. However, the Transmission Owners may voluntarily contract some functional responsibilities to other entities, like the RA, TOP, and TSP, but the ultimate responsibility would still reside with the Transmission Owner.

System operating limits (and interconnection reliability operating limits) are the lesser of the thermal, stability and voltage limits. The determination of each of these limits resides with different entities (functions). Equipment thermal limits and the thermal-based value of Tv for that equipment are the responsibility of the Transmission Owners. (For instance, a Transmission Owner might have dynamic thermal line ratings on specific transmission lines which are the responsibility of the TO.) Stability limits and associated value of Tv are the responsibility of the RA in the operating horizon and the PA in the planning horizon. Voltage limits are a responsibility shared by all three entities (functions). Therefore, we believe it is incorrect to say that any one entity (function) has ultimate responsibility to establish Interconnection Reliability Operating Limits.

We suggest the above reasoning be used to revise this standard, the Operate Within IROL standard, and all other standards.

- 2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
- 🛛 Yes
- No No

Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
□ No
Comments Regional difference should be accommodated so long as they are not detrimental to the Interconnection.
4. Are you aware of any other Regional differences that should be included in this standard?
🖂 Yes
□ No
Comments Any "methodology" for establishing ratings, operating limits, and / or transfer capabilities may have individual owner differences as well as Regional differences.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).	
⊠ Yes	
□ No	
Comments	
6. Do you agree with the proposed requirements and measurements in section 601? ⊠ Yes	
Comments	

7. Do you agree with the proposed compliance monitoring process in section 601?
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments
9. Do you agree with the proposed requirements and measurements in section 602?
Comments: The establishment and communication of facility ratings to all functions that will need those ratings is good. In particular, the ratings must be sent to the Transmission Service Provider, in addition to the RA, TOP and transmission planning section of the PA. The FERC regulated TSP will use the ratings to determine Available Transfer Capability (per the Functional Model) and TTC. In addition, the TSP is required by FERC to sign a Code of Conduct and is a Service Function per the Model, so there should be no objection to the TSP having this information.
Therefore, "Transmission Service Provider" should be added to the RA, PA, and TOP in 602 sections 1.2 and 2.2.
10. Do you agree with the proposed compliance monitoring process in section 602? \square Yes
Comments

11. Do you agree with the proposed levels of non-compliance in section 602?

⊠ Yes □ No

Comments

12. Do you agree with the proposed requirements and measurements in section 603?

🛛 No

Comments We believe the Transmission Owner has the ultimate responsibility to establish equipment operating limits which is a result of its fiduciary responsibility for its owned facilities. The Transmission Owner has ultimate responsibility and liability for owning, maintaining and operating its facilities to protect its stockholders' and lending institutions' investments. The Transmission Owner, then, is ultimately responsible for establishing system operating limits based on thermal ratings. While the Transmission Owner may voluntarily contract to have some other entity (function) perform some of the operations needed to ensure that fiduciary responsibility, it is the Transmission Owner that has ultimate responsibility. Neither NERC standards nor the Functional Model can allocate or transfer that responsibility to the RAs. Under state law, Transmission Owners must typically obtain state regulatory approval to transfer control or operational authority over jurisdictional facilities to third parties. Forcing Transmission Owners to allow a third party, such as the RA, to cede ultimate responsibility for establishing system limits could trigger the need for state regulatory approvals. However, the Transmission Owners may voluntarily contract some functional responsibilities to other entities, like the RA, TOP, and TSP, but the ultimate responsibility would still reside with the Transmission Owner.

System operating limits (and interconnection reliability operating limits) are the lesser of the thermal, stability and voltage limits. The determination of each of these limits resides with different entities (functions). Equipment thermal limits and the thermal-based value of Tv for that equipment are the responsibility of the Transmission Owners. (For instance, a Transmission Owner might have dynamic thermal line ratings on specific transmission lines which are the responsibility of the TO.) Stability limits and associated value of Tv are the responsibility of the RA in the operating horizon and the PA in the planning horizon. Voltage limits are a responsibility shared by all three entities (functions). Therefore, we believe it is incorrect to say that any one entity (function) has ultimate responsibility to establish system operating limits. We also believe it is incorrect to say that any one entity function Reliability Operating Limits.

We suggest the above reasoning be used to revise this standard, the Operate Within IROL standard, and all other standards.

Please add TOs and TSPs to the requirements 603 section 1.1 for documenting the methodology used for determining system operating limits, as the draft standard only indicates RAs, PAs, and TOPs.

The requirements of 603 section 1.3 should be modified to include the following statement:

"Table I contains a minimum level of performance. Some Transmission Owners and or regions plan for operations beyond the N-1 criteria shown in Table I."

The measures for 603 seem satisfactory.

13. Do you agree with the proposed compliance monitoring process in section 603? Yes

No No

Comments

14. Do you agree with the proposed levels of non-compliance in section 603?
⊠ Yes
□ No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
☐ Yes
Comments We believe the Transmission Owner has the ultimate responsibility to establish equipment operating limits which is a result of its fiduciary responsibility for its owned facilities. The Transmission Owner has ultimate responsibility and liability for owning, maintaining and operating its facilities to protect its stockholders' and lending institutions' investments. The Transmission Owner, then, is ultimately responsible for establishing system operating limits based on thermal ratings. While the Transmission Owner may voluntarily contract to have some other entity (function) perform some of the operations needed to ensure that fiduciary responsibility, it is the Transmission Owner that has ultimate responsibility. Neither NERC standards nor the Functional Model can allocate or transfer that responsibility to the RAs. Under state law, Transmission Owners must typically obtain state regulatory approval to transfer control or operational authority over jurisdictional facilities to third parties. Forcing Transmission Owners to allow a third party, such as the RA, to cede ultimate responsibility for establishing system limits could trigger the need for state regulatory approvals. However, the Transmission Owners may voluntarily contract some functional responsibilities to other entities, like the RA, TOP, and TSP, but the ultimate responsibility would still reside with the Transmission Owner.

System operating limits (and interconnection reliability operating limits) are the lesser of the

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We suggest the above reasoning be used to revise this standard, the Operate Within IROL standard, and all other standards.
Please add TOs and TSPs to the requirements 604 section 1.1 for establishing the system operating limits, as the draft standard only indicates RAs, PAs, and TOPs.
The requirements of 604 section 1.2 limit distribution of system operating limits to the "area for which they are responsible". All of the specified entities should provide the limits to all the other specified entities in the list. We suggest the following wording for requirements 1.2:
1.2 The reliability authority, planning authority, transmission operator, transmission service provider, and transmission owner shall provide all system operating limits to each of the other functions (entities) in this list.
The measures for 604 seem satisfactory so long as the functional entities are changed to be consistent with the statements above.
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes

🛛 No

Comments We agree with the compliance monitoring process in section 604 if the functional entities are changed to be consistent with our comments above for the requirements and measures.

17. Do you agree with the proposed levels of non-compliance in section 604?

Yes

🛛 No

Comments We agree with the levels of non-compliance in section 604 if the functional entities are changed to be consistent with our comments above for the requirements and measures.

18. Do you agree with the proposed requirements and measurements in section 605?
• • • • •
No No
Comments Transfer capability is determined by the TSP. In 605 section 1.1, please replace the RA and PA with TSP.
The measures are OK.
There will be Regional differences so please acknowledge that in section 3. Regional Differences.
19. Do you agree with the proposed compliance monitoring process in section 605?
⊠ Yes
□ No
Comments
20. Do you agree with the propaged levels of non-compliance in section (052
20. Do you agree with the proposed levels of non-compliance in section 605?
⊠ Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
Yes
No
Comments Transfer capability is determined by the TSP. In 606 section 1.1, please replace the
RA and PA with TSP.
RA and PA with TSP.

22. Do you agree with the proposed compliance monitoring process in section 606?
🖂 Yes
Comments

23. Do you agree with the proposed levels of non-compliance in section 606?

\triangleleft	Yes

🗌 No

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

• We are becoming increasingly concerned about this standard development process. This and other standards are being developed based on certain definitions and assumptions contained in the Function Model. These "standards" will become fixed such that the industry will be held accountable to and measured by these standards. However, the Functional Model and the definitions contained in that revised model are changing and will not necessarily be the same as those used to develop the standards, like this Operate Within Limits. What is the process for reviewing, revising and implementing changes to the Functional Model, and the impact of those changes on all these standards that have been developed based on the old Functional Model? Are the changes to the Functional Model being vetted by all industry participants before implementation? What is the process to revise these standards prior to implementing changes to the Functional Model?

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Name

Organization

Industry Segment #

Telephone

E-mail

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- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: MAPP Regional Group Representative: Lloyd Linke				
Reliability Council, assisted by the	Representative Phone: 605-882-7500			
MAPP Operations Subcommittee (members listed below)		Representative Email: lloyd@wapa.gov		
ist of Group Participants that Support These Comments:				
Name	Company	Industry Segment #		
Allan Silk	Manitoba Hydro	2		
Paul Brune	Nebraska Public Power District	2		
Paul Koskela	Minnesota Power	2		
Larry Larson	Otter Tail Power	2		
Darrick Moe	WAPA	2		
Dick Pursley	Great River Energy	2		
Martin Trence	Xcel Energy	2		
Todd Gosnell	Omaha Public Power District	2		
Joseph Knight	MAPPCOR	2		

Background Information:

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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
	No
Со	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\boxtimes	Yes
	No
Co	mments

	3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
	🖂 Yes
	No No
	Comments
	4. Are you aware of any other Regional differences that should be included in this standard?
	🖂 Yes
	□ No
que	Comments: MAPP also has a regional difference in section 603.1. The table referred to under estion 12 was developed using an open comment process.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
□ No
Comments
6. Do you agree with the proposed requirements and measurements in section 601? ☐ Yes ☑ No
Comments Item 601.1.3 should explicitly include current tranformers, wavetraps, circuit breakers, switches, buswork, and relay load limits when listing equipment types.
7. Do you agree with the proposed compliance monitoring process in section 601?
Yes
□ No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
8. Do you agree with the proposed levels of non-compliance in section 601? ☑ Yes □ No

9. Do you agree with the proposed requirements and measurements in section 602? Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
Yes
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments See attached MAPP table I, (inserted at the end of this document) to be used in

13. Do you agree with the proposed compliance monitoring process in section 603?
X Yes
Comments
14. Do you agree with the propaged levels of non-compliance in section (022)
14. Do you agree with the proposed levels of non-compliance in section 603?
\square No
Comments
Continents
15. Do you agree with the proposed requirements and measurements in section 604?
X Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
🖂 Yes
No No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
⊠ Yes
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🖂 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
⊠ Yes
\square No
Comments
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
⊠ Yes
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
🖂 Yes
Comments
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
20. Do you agree with the proposed levels of non compliance in section over
🖂 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary
before it can be brought to ballot?
Comments
25. Please enter any other comments you have regarding this standard in the space
below.

Comments:

Is there a reason why NERC defined terms are not capitalized throughout the Standard?

Category	Contingencies		System Limits or Impacts					
	Initiating Event(s) and Contingency Element(s)	Elements Out of Service	Thermal Limits	Voltage Limits	System Stable	Loss of Demand or Curtailed Firm Transfers	Cascading ^c Outages	
A - No Contingencie s	All Facilities in Service	None	Applicable Rating ^a (A/R)	Applicable Rating ^a (A/R)	Yes	No	No	
B - Event resulting in the loss of a single element.	Single Line Ground (SLG) or 3-Phase (3Ø) Fault, with Normal Clearing: 1. Generator 2. Transmission Circuit 3. Transformer Loss of an Element without a Fault.	Single Single Single Single	A/R A/R A/R A/R	A/R A/R A/R A/R	Yes Yes Yes Yes	No ^b No ^b No ^b No ^b	No No No No	
	Single Pole Block, Normal Clearing ^f : 4. Single Pole (dc) Line	Single	A/R	A/R	Yes	No ^b	No	

Table I. Transmission Systems Standards – Normal and Contingency Conditions

C - Event(s) resulting in the loss of	SLG Fault, with Normal Clearing ^f : 1. Bus Section 2. Breaker (failure or internal fault)	Multiple Multiple	A/R A/R	A/R A/R	Yes Yes	Planned/Controlled ^d Planned/Controlled ^d	No No
two or more (multiple) elements.	 SLG or 3Ø Fault, with Normal Clearing^f, Manual System Adjustments, followed by another SLG or 3Ø Fault, with Normal Clearing^f: 3. Category B (B1, B2, B3, or B4) contingency, manual system adjustments, followed by another Category B (B1, B2, B3, or B4) contingency 	Multiple	A/R	A/R	Yes	Planned/Controlled ^d	No
	 Bipolar Block, with Normal Clearing^f: 4. Bipolar (dc) Line Fault (non 3Ø), with Normal Clearing^f: 5. Any two circuits of a multiple circuit towerline^g 	Multiple Multiple	A/R A/R	A/R A/R	Yes Yes	Planned/Controlled ^d Planned/Controlled ^d	No No
	SLG Fault, with Delayed Clearing ^f (stuck breaker or protection system failure): 6.Generator 8. Transformer 7.Transmission Circuit 9. Bus Section	Multiple Multiple	A/R A/R	A/R A/R	Yes Yes	Planned/Controlled ^d Planned/Controlled ^d	No No

D ^e - Extreme event resulting in two or more (multiple) elements removed or cascading out of service	 3Ø Fault, with Delayed Clearing ^f (stuck breaker or protection system failure): Generator Transformer Transmission Circuit Bus Section 3Ø Fault, with Normal Clearing^f: Breaker (failure or internal fault) Other: Loss of towerline with three or more circuits All transmission lines on a common right-of way Loss of a substation (one voltage level plus transformers) Loss of a switching station (one voltage level plus transformers) Loss of all generating units at a station Loss of a large load or major load center Failure of a fully redundant special protection system (or remedial action scheme) to operate when required Operation, partial operation, or misoperation of a fully redundant special protection system (or remedial action scheme) in response 	 Evaluate for risks and consequences. May involve substantial loss of customer demand and generation in a widespread area or areas. Portions or all of the interconnected systems may or may not achieve a new, stable operating point. Evaluation of these events may require joint studies with neighboring systems.
	 Operation, partial operation, or misoperation of a fully redundant special protection system (or remedial action scheme) in response to an event or abnormal system condition for which it was not intended to operate Impact of severe power swings or oscillations from disturbances in another Regional Council. 	

a) Applicable rating (A/R) refers to the applicable normal and emergency facility thermal rating or system voltage limit as determined and consistently applied by the system or facility owner. Applicable ratings may include emergency ratings applicable for short durations as required to permit operating steps necessary to maintain system control. All ratings must be established consistent with applicable NERC Planning Standards addressing facility ratings.

b) Planned or controlled interruption of electric supply to radial customers or some local network customers, connected to or supplied by the faulted element or by the affected area, may occur in certain areas without impacting the overall security of the

interconnected transmission systems. To prepare for the next contingency, system adjustments are permitted, including curtailments of contracted firm (non-recallable reserved) electric power transfers.

- c) Cascading is the uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread service interruption which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.
- d) Depending on system design and expected system impacts, the controlled interruption of electric supply to customers (load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted firm (non-recallable reserved) electric power transfers may be necessary to maintain the overall security of the interconnected transmission systems.
- e) A number of extreme contingencies that are listed under Category D and judged to be critical by the transmission planning entity(ies) will be selected for evaluation. It is not expected that all possible facility outages under each listed contingency of Category D will be evaluated.
- f) Normal clearing is when the protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer (CT), and not because of an intentional design delay.
- g) System assessments may exclude these events where multiple circuit towers are used over short distances (e.g., station entrance, river crossings) in accordance with Regional exemption criteria.

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

lame of Group: South Carolina	Group Representative: <i>Clay Young</i> Representative Phone: (803) 217-9129 Representative Email: <u>cyoung@scana.com</u>		
Electric & Gas – Transmission Owner, Generation Owner, and Load Serving Entity			
List of Group Participants that Suppo	ort These Comments:		
Name	Company	Industry Segment #	
Clay Young	South Carolina Electric & Gas	3	
Lee Xanthakos	South Carolina Electric & Gas	1	
Gene Soult	South Carolina Electric & Gas	5	
Gene Delk	South Carolina Electric & Gas	1	
Phil Kleckley	South Carolina Electric & Gas	3	
Peter Chow	South Carolina Electric & Gas	3	
Charles White	South Carolina Electric & Gas	1	
Al McMeekin	South Carolina Electric & Gas	1	
Johnny Martin	South Carolina Electric & Gas	3	

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
] Yes
] No
and th	omments: Establishment of the Operating Limits are the joint responsibility of the RA, PA, le TO in concert. The TO should have ultimate responsibility for facility ratings because they e required to replace the equipment if it fails due to overload.
lt	appears that question 1 is inconsistent with 604.1.1.
	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
] No
С	omments
	NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
] No
_	omments: However, if our recommendation in question # 12 below is adopted inclusion of
	ic regional differences would no longer be needed.
4.	Are you aware of any other Regional differences that should be included in this standard?
] Yes
\triangleright] No

Comments: However, if our comment in question # 12 below is not accepted, SCE&G will insist that SERC request a Regional difference.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments:
1. The standard should explicitly state that the methodology must be technically sound (i.e., should conform to good utility practice). Section 601.1.3 should be changed to stop with "that comprise the facility are determined." A new section (601.1.4) should read: "The methodology required in 601.1.1 shall be technically correct (conform to good utility practice) and reference industry rating practices or other standards (e.g., IEEE, ANSI, CSA)."
2. The terms "disconnecting devices" in 601.1.3 should be changed to "terminal equipment" to encompass not only disconnecting devices, but also CTs, PTs, protection, wave traps, etc. as listed on page 5 of the SAR.
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
\square No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments: However, section 601.1.4 (proposed in our comment in question 6) should be incorporated into the Levels of Non-Compliance.

9. Do you agree with the proposed requirements and measurements in section	602?
Comments	
10. Do you agree with the proposed compliance monitoring process in section 6	02?
🖂 Yes	
🗌 No	
Comments	
11. Do you agree with the proposed levels of non-compliance in section 602?	
⊠ Yes	
\square No	
Comments	
12. Do you agree with the proposed requirements and measurements in section	603?
No No	
Comments: SCE&G believes that the existing NERC PSS Table 1 defines the appro	
levels of performance. SCE&G and most of the Transmission Providers in the south beyond N-1 criteria.	east plan
Most Transmission Providers in the southeast include a generator out simultaneous	with the
most critical transmission line out in their grid design. Appropriate criteria should als	o include
the requirement that following the loss of a single facility, the transmission system sh	
adjusted to a state that can tolerate the loss of the next single facility. Transmission that meet these kinds of test will continue to provide the expected and needed reliab	
grid.	
As currently written, it appears that Standard 603 is based on "least common denom	in otor"
thinking. That is, everyone does N-1 so let's reduce "all" reliability to that level. Adh	erence to
	erence to

13. Do you agree with the proposed compliance monitoring process in section 603?
Yes
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
□ No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
□ No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
\square No
Comments
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
□ No
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
☐ Yes
Comments: A new section (605.1.4) should read: " The methodology required in 605.1.1 shall conform to good utility practice (e.g., NERC Reference Document: <u>Transmission</u> <u>Transfer Capability—May 1995</u>)."
19. Do you agree with the proposed compliance monitoring process in section 605?
\boxtimes Yes
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
□ □ No
Comments: However, section 605.1.4 (proposed in our comment in question 18) should be incorporated into the Levels of Non-Compliance.

21. Do you agree with the proposed requirements and measurements in section 606?
Comments
22. Do not a creative the managed compliance menitoring masses in costion (0/2
22. Do you agree with the proposed compliance monitoring process in section 606?
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
Yes
No No
Comments
24. What additional clarification, details, or modifications to this standard are necessary
before it can be brought to ballot?
Comments:
1. Footnote "d" to Table I on page 7 is not correct. It appears that the wrong footnote was copied from Table I of NERC Planning Standards I.A. The correct footnote should be the
same as footnote "e" to the NPCC Table IA which reads: "Normal clearing is when the
protection system operates as designed and the fault is cleared in the time normally expected
with proper functioning of the installed protection systems. Delayed clearing of a fault is due to failure of any protection system component such as a relay, circuit breaker, or current
transformer (CT), and not because of an intentional design delay."

2. The Sanctions Table on page 18 needs further clarification.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Paul Johnson coordinated comments for AEP Organization AEP

Industry Segment # 1,3,5,6

Telephone 614.552.1670

E-mail pbjohnson@aep.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information (For Groups Submitting Group Comments)		
Name of Group:	Group Representat	ive:
	Representative Pho	
	Representative Emai	
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segment #

Background Information:

Notes to Industry Commenters:

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
X Yes
Comments We would expect that the working relationship between the RA's and the TOps would be such that the RA would monitor the SOL conditions that would have a 'wide-area' and/or large load interruption implications while the more local issues and conditions would be delegated to the Transmission Operators to monitor. In any case the Reliability Authority has the ultimate responsibility.
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X Yes
No No
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC
standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
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<pre>standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?</pre>
 standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No Comments: A regional difference should be reserved for situations where due to the particular situation of a region, the standard is not practical or appropriate to apply in that locale. The Regional difference should facilitate a new (minimum) standard that would be appropriate for that situation in lieu of the standard applicable to the other parts of NERC. A Region (or any other entity) can always exceed this minimum requirement. As proposed, NPCC is requesting inclusion of a Regional difference that exceeds the proposed minimum performance level proposed in this particular standard. Although there is no obvious negative in this particular case, having a more 'robust' Regional standard included in the NERC Standard is bad policy and precedent. Any Region can place themselves under a 'higher standard', which in this case would be a more appropriate avenue. 4. Are you aware of any other Regional differences that should be included in this
 standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No Comments: A regional difference should be reserved for situations where due to the particular situation of a region, the standard is not practical or appropriate to apply in that locale. The Regional difference should facilitate a new (minimum) standard that would be appropriate for that situation in lieu of the standard applicable to the other parts of NERC. A Region (or any other entity) can always exceed this minimum requirement. As proposed, NPCC is requesting inclusion of a Regional difference that exceeds the proposed minimum performance level proposed in this particular standard. Although there is no obvious negative in this particular case, having a more 'robust' Regional standard included in the NERC Standard is bad policy and precedent. Any Region can place themselves under a 'higher standard', which in this case would be a more appropriate avenue. 4. Are you aware of any other Regional differences that should be included in this standard?
<pre>standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?</pre>

particular aspect of a standard and make that Region subject to requirements that would achieve a
comparable performance objective.
5. Do you agree with the sanction philosophy in this standard? (No financial penalties
for methodology violations, nominal fixed monetary penalties for failure to
communicate values).
X Yes
No
n
Comments This standard does not propose monetary sanctions for not having required
'paperwork', which is reasonable and appropriate. This standard will also apply fix dollar sanctions
for repeated or serious violations for the unavailability of critical reliability data. This too is
appropriate. Monetary sanctions based on 'partial credit', or 'per MW' would be arbitrary and likely
unworkable.
6. Do you agree with the proposed requirements and measurements in section 601?
6. Do you agree with the proposed requirements and measurements in section 601?
6. Do you agree with the proposed requirements and measurements in section 601?
6. Do you agree with the proposed requirements and measurements in section 601? Yes X No
 6. Do you agree with the proposed requirements and measurements in section 601? Yes X No Comments In Section 2.1 add Transmission Operators, for consistency with 602,604, and 606.
6. Do you agree with the proposed requirements and measurements in section 601? Yes X No
 6. Do you agree with the proposed requirements and measurements in section 601? Yes X No Comments In Section 2.1 add Transmission Operators, for consistency with 602,604, and 606.
 6. Do you agree with the proposed requirements and measurements in section 601? Yes X No Comments In Section 2.1 add Transmission Operators, for consistency with 602,604, and 606.

7. Do you agree with the proposed compliance monitoring process in section 601?
X Yes
🗌 No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
X No
Comments In 601.5.4 (level 4) add Transmission Operator to the listing.
9. Do you agree with the proposed requirements and measurements in section 602?
X Yes
No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
Comments 602.4.1 requires self certification at least every three years and 602.4.2 requires
annual verification that the data has been received by the Reliability Authority et.al. These activities appear redundant. Recommend deletion of 602.4.1.

11. Do you agree with the proposed levels of non-compliance in section 602?
X Yes
Comments
 12. Do you agree with the proposed requirements and measurements in section 603? X Yes No Comments However, to avoid confusion the caption of column 3 should be changed to "Facilities Out of Service" (replace 'element'); and caption of row 3 should be changed to "B-
Event Resulting in the loss of a single Facility". This would provide consistency with definitions supplied with this standard.
13. Do you agree with the proposed compliance monitoring process in section 603? X Yes No Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
X Yes
Comments
15. Do you agree with the proposed requirements and measurements in section 604? X Yes
Comments Delete the word "function" from 604.2.3. You can not provide limits to a function only to an entity that performs a function.

16. Do you agree with the proposed compliance monitoring process in section 604?
X No
Comments 604.4.1 requires self certification at least every three years and 604.4.2 requires annual verification that the data has been received by the Reliability Authority et.al. These activities appear redundant. Recommend deletion of 604.4.1.
17. Do you agree with the proposed levels of non-compliance in section 604?
X Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
☐ Yes X∏ No
Comments: In May 1995 NERC published "Transmission Transfer Capability – A reference Document for Calculating and Reporting the Electric Power Transfer Capability of Interconnected Electric Systems". Does the SDT anticipate that a statement by a Reliability Authority or a Planning Authority stating that Transfer Capabilities will be determined by the this NERC document would meet the requirements of 605.2.1?
What is the course of action if the RA and PA disagree on the methodology? Which functional entity has the final say? We believe the Standard should specify only one entity to be ultimately responsible. For this requirement we suggest it should be the PA. Suggested rewording: "The Planning Authority in coordination with the Reliability Authority shall document the methodology they use for determining transfer capabilities."
19. Do you agree with the proposed compliance monitoring process in section 605? X Yes
Comments

20. Do you agree with the proposed levels of non-compliance in section 605?

X Yes

No No

Comments In 605.5.2.2, the word 'equipment' should be replaced with the word 'topics'.

21. Do you agree with the proposed requirements and measurements in section 606? Yes

X No

Comments

1.1: Suggest rewording as follows: "The Planning Authority in coordination with the Reliability Authority shall establish and . . "

1.1: Suggest inserting "service:" "... Transmission Operator, Transmission Service Provider functions, and NERC and its Regions."

In measurement 2.2, NERC appears to be able to request intra-regional Transfer Capabilities from individual Reliability Authorities and Planning Authorities. Often these quantities are not required for the reliability or planning of the system. Recommend that 2.2 be modified, and measure 2.3 be added as follows:

2.2 Responsible entities shall supply Transfer Capability values as requested to Reliability Authorities, Transmission Service Providers, Planning Authorities and Transmission Operators on a schedule established by the Reliability Authority, Planning Authority, Transmission Service Provider, and Transmission Operator.

2.3. Responsible entities shall supply INTERREGIONAL Transfer Capability values as requested to NERC, its Regions, Reliability Authorities, Transmission Service Providers, Planning Authorities and Transmission Operators on a schedule established by the Reliability Authority, Planning Authority, Transmission Service Provider, Transmission Operator, NERC and its Regions.

22. Do you agree with the proposed compliance monitoring process in section 606? X Yes

No No

Comments

23. Do you agree with the proposed levels of non-compliance in section 606?
X Yes No Comments
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments: Defined terms must be capitalized, such as "Reliability Authority", "Facility Rating", "System Operating Limit", "Planning Authority", etc.

25. Please enter any other comments you have regarding this standard in the space below.

Comments Penalties for non-complaince are not comparable between this Standard and the Operate within Interconnection Reliability Operating Limits Standard.

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Dilip Mahendra

Organization SMUD

Industry Segment # 1

Telephone 916-732-6180

E-mail dmahend@smud.org

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Representative Pho	Group Representative: Representative Phone:		
Representative Email: List of Group Participants that Support These Comments:				
Name	Company	Industry Segmen #		

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
	No
Co	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\boxtimes	Yes
	No
Co	mments
	⊠ □ Co 2.

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
Yes
🖂 No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
Yes
🖂 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
🗌 No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
🖂 Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
🛛 🖾 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
⊠ Yes ☐ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No

13. Do you agree with the proposed compliance monitoring process in section 603?
⊠ Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
🛛 Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604? Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🛛 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
No No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
🛛 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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SAR Commenter Information (For Individual Commenters)

Name James Spearman/Florence Belser

Organization Public Service Commission of South Carolina

Industry Segment # 9

Telephone 803-896-5142/803-896-5118

E-mail james.spearman@psc.state.sc.us Florence.belser@psc.state.sc.us

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: Public Service Commission of South Carolina	Group Representative: Ja Representative Phone: 80	-		
	Representative Email: james.spearman@psc.state.sc.us			
List of Group Participants that Support These Comments:				
Name	Company	Industry Segment #		
Mignon L. Clyburn	Chairman, Public Service Commission of South Carolina	9		
James B. Atkins	Commissioner, Public Service Commission of South Carolina	9		

Background Information:

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Notes to Industry Commenters:

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General Philosophy:

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Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values *requested by the users* of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
X Yes
Comments
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X Yes
🗌 No
Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
X Yes
🗌 No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
Yes
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
X Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
X Yes
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
\overline{X} Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
X Yes
Comments
9. Do you agree with the proposed requirements and measurements in section 602?
No
Comments

10. Do you agree with the proposed compliance monitoring process in section 602?
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
XYes
Comments
12. Do you agree with the proposed requirements and measurements in section 603?
🛛 No
Comments The Public Service Commission of South Carolina recommends endorsing
the standard, with the comment that planning for single contingency failures may not be
adequate in all situations. It may be prudent to identify and plan to respond to multiple contingency failures whose expected frequency is above an appropriate probability
threshold, and which pass an appropriate cost/benefit test.
13. Do you agree with the proposed compliance monitoring process in section 603?
\overline{X} Yes
\square No
Comments

14. Do you agree with the proposed levels of non-compliance in section 603?
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
X Yes
No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes
Comments
17. Do you agree with the proposed levels of non-compliance in section 604?
Yes
No No
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
X Yes
Comments

4.0	
	Do you agree with the proposed compliance monitoring process in section 605?
	Yes
	No
Со	mments
20	Do you agree with the proposed levels of non-compliance in section 605?
	Yes
	No
Co	mments
21	Do you agree with the proposed requirements and measurements in section 606?
	Yes
	No
	mments
CO	minents
2.2	Do you agree with the proposed compliance monitoring process in section 606?
	Yes
_	No
Co	mments

23. Do you agree with the proposed levels of non-compliance in section 606? Yes

No No

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

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Name

Organization

Industry Segment #

Telephone

E-mail

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- 5 Generators
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- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:		tive: Scott Moore, Chairman	
Operating Reliability Working Group	Representative Phone: 614-716-6600 Representative Email: spmoore@aep.com		
Southwest Power Pool			
List of Group Participants that Suppo	rt These Comments:		
Name	Company	Industry Segment #	
Gerry Burrows	KCP&L	1	
Bob Cochran	SPS	1	
Peter Kuebeck	OG&E	1	
Scott Moore	AEP	1	
Tom Stuchlik	Westar	1	
Dan Boezio	AEP	1	
Matt Bordelon	CLECO	1	
Mike Crouch	WFEC	1	
Mike Gammon	KCP&L	1	
Kevin Goolsby	SPP	2	
Bo Jones	Westar	1	
Allen Klassen	Westar	1	
Thad Ness	AEP	1	
Harold Wyble	KCP&L	1	
Robert Rhodes	SPP	2	

Background Information:

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Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🖂 Yes
No No
Comments
Yes, especially with regards to Standards 603 and 604.
Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?Yes
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become

5. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

C Yes

🛛 No

Comments

Additional regional criteria that go beyond the NERC requirements should be contained in regional agreements not in the NERC standard. Only regional differences that do not meet the NERC minimal requirements should be included in NERC standards.

4. Are you aware of any other Regional differences that should be included in this standard?

Yes

🛛 No

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
Yes
No No
Comments
If an incorrect limit is calculated or a limit is not communicated, the financial consequences may be basically the same.
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments
The transmission operator should be allowed to review the rating methodology and therefore should be included in Measure 2.1.
7. Do you agree with the proposed compliance monitoring process in section 601? ⊠ Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
☐ Yes ⊠ No
Comments
Sections 5.2 and 5.3 are very confusing. These non-compliance levels need to be clarified.
The transmission operator needs to be included in Section 5.4. (See comment to Question 6.)

9. Do you agree with the proposed requirements and measurements in section 602?
⊠ Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
No No
Comments
The difference between what's required in Sections 4.1 and 4.2 is not clear. Why not just delete 4.1 and go with annual verification?
11. Do you agree with the proposed levels of non-compliance in section 602?
Yes
No
Comments
There is a lack of consistency in the levels of non-compliance between 601 and 602. There are monetary penalties in 602.6 for not communicating ratings in 602.6, but there are no monetary penalties for not having ratings at all in 601.6.
12. Do you agree with the proposed requirements and measurements in section 603?
No No
Comments
Replace "element(s)" with "facility(ies)" in the following places in Table I: heading of the third column, first column third row and in footnote (c).

13. Do you agree with the proposed compliance monitoring process in section 603?
🛛 Yes
No No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
The Do you agree with the proposed levels of non comphance in section over
☐ Yes
Comments
See comment on Question 5.
15. Do you agree with the proposed requirements and measurements in section 604?
\boxtimes Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
Comments
See comment on Question 10.

17. Do you agree	e with the proposed levels of non-compliance in section 604?
Yes	
🖂 No	
Comments	
See comment on	Question 5.
	e with the proposed requirements and measurements in section 605?
Yes	
🗌 No	
Comments	
Should there be a	proposed methodology for ATC, TTC, etc calculations?
19. Do you agree	with the proposed compliance monitoring process in section 605?
🛛 Yes	
⊠ Yes □ No	
 No	
 No	
 No	
No	
☐ No Comments	e with the proposed levels of non-compliance in section 605?
☐ No Comments	with the proposed levels of non-compliance in section 605?
☐ No Comments 20. Do you agree	with the proposed levels of non-compliance in section 605?
☐ No Comments 20. Do you agree	with the proposed levels of non-compliance in section 605?
☐ No Comments 20. Do you agree	

21. Do you agree with the proposed requirements and measurements in section 606?

🛛 No

Comments

It is very cumbersome and can often times be very confusing when two entities are given responsibility for the same task. The requirements outlined in 1.1, 2.1 and 2.2 call for both the reliability authority and the planning authority to develop and provide transfer capabilities. We suggest that the planning authority should be ultimately responsible for identifying and quantifying the transfer capabilities. However, the planning authority should thoroughly coordinate this effort with the reliability authority. Wording such as "The planning authority shall coordinate with the planning authority to establish..." would be better.

Following this line of thought with the measures in 2.1 and 2.2, wording should be changed to reflect the planning authority's ultimate responsibility. "The planning authority entity shall..." makes a better fit.

Are the studies used to determine transfer capabilities intra-regional or interregional?

The schedule referred to in 2.2 should be mutually agreeable to all entities.

22. Do you agree with the proposed compliance monitoring process in section 606?

No

Comments

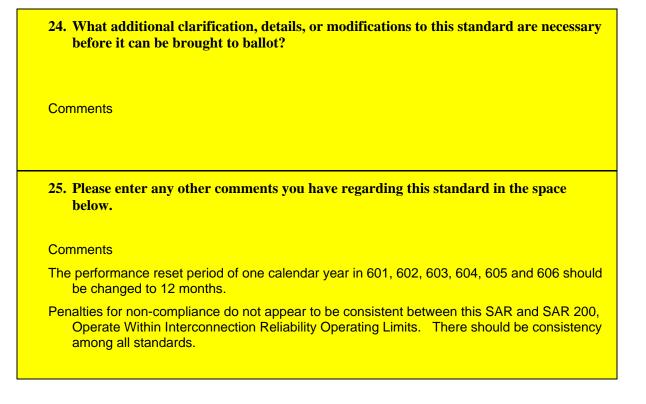
23. Do you agree with the proposed levels of non-compliance in section 606?

X Yes

No

Comments

See comment on Question 5.



<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

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Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name John Blazekovich

Organization Exelon Corporation

Industry Segment # 1,3,5,6

Telephone 630-691-4777

E-mail john.blazekovich@exeloncorp.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Gro		
Name of Group:	Group Representat	ive:	
	Representative Phone: Representative Email:		
List of Group Participants t	hat Support These Comments:		
Name	Company	Industry Segment #	

Background Information:

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The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🗌 Yes
🖂 No
Comments: We suggest that the words used in the above question be used in the actual standard.
The standard states that "the reliability authority, planning authority and transmission operator shall establish system operating limits for the areas they are responsible". This wording does not reflect the statement made in question1 above. The following wording is suggested:
"The reliability authority, planning authority, and transmission operator shall establish system operating limits as required for the areas which they are responsible. The planning authority has the ultimate responsibility to establish system operating limits with input from the transmission operator."
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? ∑ Yes
 □ No
Comments: The "Purpose" on page 2 of the standard does not cover "all" system operating limits, but only those that result in cascading outages, uncontrolled separation, and voltage and transient instability and is not consistent with the SOL definition (page 1 of the Standard). The following wording change is suggested:
"To determine all facility ratings, system operating limits and transfer capabilities necessary to plan and operate the bulk electric system within predefined facility and operating limits."
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
🖂 No

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
☐ Yes
x No
Comments If a requirement is not important enough to include sanctions it should not be included in the Standards.
6. Do you agree with the proposed requirements and measurements in section 601?
No
Comments Section 601.1.2 states "facility ratings shall not exceed the applicable ratings of the individual equipment that comprises the facility". This statement is in conflict with the "Purpose" statement in section 600 which states that facility ratings need only be adhered to in order to avoid "cascading outages, uncontrolled system separation, and voltage and transient instability". This would allow an applicable rating of individual equipment to be exceeded resulting in thermal overloads or low voltage that does not result in a cascading outage, uncontrolled system separation, and voltage and transient instability. In order to correct this, the purpose statement in section 600 needs to be rewritten to also include thermal overloads and low voltage that do not result in cascading outages and instability.

7. Do you agree with the proposed compliance monitoring process in section 601?
x No
Comments : Reset period should not be 1 year – non-compliance should reset as soon as methodology is deemed in compliance
8. Do you agree with the proposed levels of non-compliance in section 601?
X Yes
Comments
9. Do you agree with the proposed requirements and measurements in section 602?
🖂 No
Comments The requirement should read as follows: The transmission owner and generator owner shall establish facility ratings for their electric facilities consistent with the ratings methodology described in section 601.1 . This change results in the requirement being consistent with the measurement (602.2.1).
10. Do you agree with the proposed compliance monitoring process in section 602? X Yes
Comments

11. Do you agree with the proposed levels of non-compliance in section 602? **Yes** x No Comments We feel that inconsistent methodology should be the most severe level of noncompliance (level 4) 12. Do you agree with the proposed requirements and measurements in section 603? **Yes** Comments Section 603.1.2 states "The methodology required in 603.1.1. shall state that system operating limits shall not violate the applicable facility ratings". This statement is in conflict with the "Purpose" statement in section 600 which states that facility ratings need only be adhered to in order to avoid "cascading outages, uncontrolled system separation, and voltage and transient instability". This would allow a system operating limit to violate an applicable facility rating that results in thermal overloads or low voltage that does not result in a cascading outage, uncontrolled system separation, and voltage and transient instability. In order to correct this, the purpose statement in section 600 needs to be rewritten to also include thermal overloads and low voltage that do not result in cascading outages and instability. Section 603.1.3 requires that system operating limits be established to "avoid system performance outside that prescribed in Table I". Table I does not allow exceeding the applicable normal and emergency facility thermal or system voltage limits even if it does not result in cascading outage or instability. Therefore, section 603.1.3 is inconsistent with the "Purpose" statement in section 600. In order to correct this, the purpose statement in section 600 needs to be rewritten to also include thermal overloads and low voltage that do not result in cascading outages and instability.

13. Do you agree with the proposed compliance monitoring process in section 603? Yes

x No

Comments Self Certification should be completed annually; data submittal or site visits should be performed on demand.

14. Do you agree with the proposed levels of non-compliance in section 603?	
Comments	
15. Do you agree with the proposed requirements and measurements in section 604?	
🖂 No	
Comments: Section 604.1.1 should be reworded as follows to be consistent with measure 604.2.1: The reliability authority, planning authority, and transmission operator shall establish system operating limits for the areas for which they are responsible <i>consistent with the methodology described in 603.1</i> .	
In section 604.1.2 it is not clear why transmission service providers are included. When the SAR was developed the comments from industry clearly stated that ATC calculations were not to be part of this standard. The NERC Functional Model Review Task Group Report dated January 1, 2003 defines transmission service providers as entities that "determines Available Transfer Capability and coordinates ATC with other Transmission Service Providers". Transmission service providers also need facility ratings to calculate ATC and yet there is no requirement under section 602.1.2 to provide them this data. Information required for ATC calculation should not be part of this standard because ATC calculations are not part of this standard.	
Requirement 604.1.2 should be reworded to not include transmission service providers and to make clear that system operating limits need only be provided as required. A reliability authority may not want system operating limits from a transmission operator because they are determining them by themselves. The following wording is suggested:	
The reliability authority, planning authority, and transmission operator shall provide system operating limits for the area for which they are responsible to their associated transmission operators, planning authorities, transmission service providers, and reliability authorities as <i>required.</i>	
Transmission service provider should be removed from measure 604.2.2 for the reasons stated above (this standard does not include ATC calculations).	
16. Do you agree with the proposed compliance monitoring process in section 604?	
X Yes	
No	

□ Yes □ No Comments: Levels 3 & 4 should be switched (see question 11). "Level one: should be not applicable (not "Not Specified") current language is ambiguous. 18. Do you agree with the proposed requirements and measurements in section 605? □ Yes □ No Comments Requirement 605.1.1 should be reworded to make absolutely clear that ATC calculation are not included. This would also make clear that requirement 605.1.3.5 is not referring to TRM and CBM which are also not to be included in this standard. The following wording is suggested: The reliability authority and planning authority shall document the methodology they use for determining transfer capabilities. Available transfer capability (ATC) calculationsand its associated margins (TRM and CBM) are not included in this standard. 19. Do you agree with the proposed compliance monitoring process in section 605? □ Yes x No Comments Self Certification should be performed annually, data submittal or site visits performed on demand. 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes No		agree with the proposed levels of non-compliance in section 604?
 No Comments: Levels 3 & 4 should be switched (see question 11). "Level one: should be not applicable (not "Not Specified") current language is ambiguous. 18. Do you agree with the proposed requirements and measurements in section 605? Yes No Comments Requirement 605.1.1 should be reworded to make absolutely clear that ATC calculation are not included. This would also make clear that requirement 605.1.3.5 is not referring to TRM and CBM which are also not to be included in this standard. The following wording is suggested: The reliability authority and planning authority shall document the methodology they use for determining transfer capabilities. Available transfer capability (ATC) calculationsand its associated margins (TRM and CBM) are not included in this standard. 19. Do you agree with the proposed compliance monitoring process in section 605? Yes x No Comments Self Certification should be performed annually, data submittal or site visits performed on demand. 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes 		
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 18. Do you agree with the proposed requirements and measurements in section 605? Yes No Comments Requirement 605.1.1 should be reworded to make absolutely clear that ATC calculation are not included. This would also make clear that requirement 605.1.3.5 is not referring to TRM and CBM which are also not to be included in this standard. The following wording is suggested: The reliability authority and planning authority shall document the methodology they use for determining transfer capabilities. Available transfer capability (ATC) calculationsand its associated margins (TRM and CBM) are not included in this standard. 19. Do you agree with the proposed compliance monitoring process in section 605? Yes x No Comments Self Certification should be performed annually, data submittal or site visits performed on demand. 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes		
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calculation are not included. This would also make clear that requirement 605.1.3.5 is not referring to TRM and CBM which are also not to be included in this standard. The following wording is suggested: The reliability authority and planning authority shall document the methodology they use for determining transfer capabilities. Available transfer capability (ATC) calculations and its associated margins (TRM and CBM) are not included in this standard. 19. Do you agree with the proposed compliance monitoring process in section 605? Yes x No Comments Self Certification should be performed annually, data submittal or site visits performed on demand. 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes	🛛 No	
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X Yes		
X Yes		
X Yes		
X Yes		
	performed o	n demand.
	performed o	n demand.
	performed o	n demand.
Comments	performed o 20. Do you : X Yes	n demand.

21. Do you agree with the proposed requirements and measurements in section 606?
No No
Comments Measure 606.2.1 needs to be reworded as follows to reflect transfer capability not ratings:
Responsible entities shall develop their transfer capabilities consistent with their ratings <i>transfer capability</i> methodology, described in 605.1.1.
The same is also true in section 606.5.3. In section 606.5.4 "transfer capability ratings" needs to be replaced with "transfer capability <i>values</i> ".
In measure 606.2.2, the term "transmission service provider" should be removed since this standard does not deal with ATC calculations. In addition, why would a transmission service provider need transfer capability values when their function is to calculate ATC?
Some Regions currently calculate transfer capability values for use in the NERC seasonal assessments. In this standard, why are the Regions excluded from having methodologies for determination of transfer capabilities and providing them to the NERC?
22. Do you agree with the proposed compliance monitoring process in section 606?
X Yes
□ No
Comments

23. Do you agree with the proposed levels of non-compliance in section 606?

Yes

x No

Comments: We feel that inconsistent methodology should be the most severe level of non-compliance (level 4)

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

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SAR Commenter Information (For Individual Commenters)

Name Raymond Mammarella

Organization PPL Electric Utilities

Industry Segment # 1

Telephone 610-774-5744

E-mail rmammarella@pplweb.com

Key to Industry Segment #'s:

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SAR Commenter Information (For Groups Submitting Group Comments)			
Name of Group:	Group Representative:		
	Representative Pho		
	Representative Email	l:	
List of Group Participants t	hat Support These Comments:		
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The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
\boxtimes	Yes
	No
Co	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
	Yes
	No
Со	mments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🛛 🖂 Yes
No No
Comments
 Are you aware of any other Regional differences that should be included in this standard? □ Yes ○ No Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
🗌 No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
🖂 Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
🛛 🖾 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
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⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
⊠ Yes ☐ No Comments
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 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No

13. Do you agree with the proposed compliance monitoring process in section 603?
Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
\square No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
X Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
🖂 Yes
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
🖂 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary
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Comments
25. Please enter any other comments you have regarding this standard in the space
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SAR Commenter Information (For Individual Commenters)

Name Carter B. Edge

Organization Southeastern Power Administration

Industry Segment # 4,5

Telephone 706-213-3855

E-mail cartere@sepa.doe.gov

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
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- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Grou	
Name of Group:	Group Representat	ive:
	Representative Pho	one:
	Representative Email	l:
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segment #

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Yes
🖂 No
Comments: Establishment of the Operating Limits are the joint responsibility of the RA, PA, and the TO in concert. It appears that question 1 is inconsistent with 604.1.1.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
🗌 No
Comments: However, if our recommendation in question # 12 below is adopted inclusion of

specific regional differences would no longer be needed.

- **4.** Are you aware of any other Regional differences that should be included in this standard?
- Yes
- 🔀 No

Comments: However, if our comment in question # 12 below is not accepted, SERC may consider requesting a Regional difference.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
No No
Comments:
1. The standard should explicitly state that the methodology must be technically sound (i.e., should conform to good utility practice). Section 601.1.3 should be changed to stop with "that comprise the facility are determined." A new section (601.1.4) should read: "The methodology required in 601.1.1 shall be technically correct (conform to good utility practice) and reference industry rating practices or other standards (e.g., IEEE, ANSI, CSA)."
2. The terms "disconnecting devices" in 601.1.3 should be changed to "terminal equipment" to encompass not only disconnecting devices, but also CTs, PTs, protection, wave traps, etc. as listed on page 5 of the SAR.
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
\square No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments: However, section 601.1.4 (proposed in our comment in question 6) should be incorporated into the Levels of Non-Compliance.

9. Do you agree with the proposed requirements and measurements in section 602?
Y 20 you agree whith the proposed requirements and measurements in section 002.
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes □ No
⊠ Yes
☑ Yes ☑ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes

13. Do you agree with the proposed compliance monitoring process in section 603?
Yes
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
□ No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
□ No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
\square No
Comments
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
□ No
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
☐ Yes
Comments: A new section (605.1.4) should read: " The methodology required in 605.1.1 shall conform to good utility practice (e.g., NERC Reference Document: <u>Transmission</u> <u>Transfer Capability—May 1995</u>)."
19. Do you agree with the proposed compliance monitoring process in section 605?
\boxtimes Yes
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
□ □ No
Comments: However, section 605.1.4 (proposed in our comment in question 18) should be incorporated into the Levels of Non-Compliance.

21. Do you agree with the proposed requirements and measurements in section 606?
No
Comments
22. Do you agree with the proposed compliance monitoring process in section 606?
🛛 Yes
🗌 No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
25. Do you agree with the proposed levels of non-comphance in section ood.
🛛 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary
before it can be brought to ballot?
Comments:
1. Recommend that a definition be added for "performance-reset period."
2. Footnote "d" to Table I on page 7 is not correct. It appears that the wrong footnote was copied from Table I of NERC Planning Standards I.A. The correct footnote should be the
same as footnote "e" to the NPCC Table IA which reads: "Normal clearing is when the
protection system operates as designed and the fault is cleared in the time normally expected
with proper functioning of the installed protection systems. Delayed clearing of a fault is
due to failure of any protection system component such as a relay, circuit breaker, or current transformer (CT), and not because of an intentional design delay."

3. The Sanctions Table on page 18 needs further clarification. Examples of its application may be useful.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For
Individual Commenters)

Name Tom Pruitt

Organization Duke Power

Industry Segment # 1

Telephone (704) 382-4676

E-mail tvpruitt@duke-energy.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: Duke Power	Group Representative	e: Tom Pruitt
	Representative Phone	e: (704) 382-4676
	Representative Email:	tvpruitt@duke-energy.com
List of Group Participants that Su	pport These Comments:	
Name	Company	Industry Segment #
Don Reichenbach	Duke Power	1
Bob Pierce	Duke Power	1
Brian Moss	Duke Power	1
Tom Pruitt	Duke Power	1
Chris Schaeffer	Duke Power	5

Background Information:

Notes to Industry Commenters:

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Yes
🖂 No
Comments The assumption made by the team is incorrect and does not concur with the standard. The reliability authority (RA) alone does not set all System Operating Limits (SOL's). Establishment of SOL's is the responsibility of the RA, planning authority (PA), and transmission owner (TO) in concert (reference section 604.1.1 of this standard).
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
Comments
 3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes
No
Comments This difference creates a potential market issue allowing restriction of business (due to lower probability events) than restrictions applied in other regions.
4. Are you aware of any other Regional differences that should be included in this

- standard?
- No
- Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
☐ Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
⊠ No
Comments The standard should explicitly state that the methodology must be technically sound (i.e., should conform to good utility practice). Section 601.1.3 should be changed to stop with " that comprise the facilities are determined." A new section (601.1.4) should read <u>"The methodology required in 601.1.1 shall be technically correct (conform to good utility practice) and reference industry rating practices or other standards (e.g., IEEE, ANSI, CSA)."</u>
7. Do you agree with the proposed compliance monitoring process in section 601?
⊠ Yes
No No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
Yes
No Comments Section 601.5.1 should read: "Level one: The facility ratings methodology does not contain 601.1.2 or address one of the items listed in 601.1.3 <u>or does not meet 601.1.4 (is</u> technically incorrect does not conform to good utility practice)."
Section 601.5.2.2 should read " types listed in 601.1.3 <u>or meet 601.1.4</u> "
Section 601.5.3.2 should read " types listed in 601.1.3 <u>or meet 601.1.4</u> "

9. Do you agree with the proposed requirements and measurements in section 602?
X 20 you ugree with the proposed requirements and measurements in section 002.
\square No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
X Yes
\square No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes □ No
⊠ Yes
⊠ Yes □ No Comments
 ☑ Yes □ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No
 ☑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments Sections 603.1.4.2 and 603.1.4.5 need to be more specific. Section 603.1.4.3
 ☑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments Sections 603.1.4.2 and 603.1.4.5 need to be more specific. Section 603.1.4.3 should read "Special protection systems or operating solutions." What is a "remedial"
 ☑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments Sections 603.1.4.2 and 603.1.4.5 need to be more specific. Section 603.1.4.3
 ☑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments Sections 603.1.4.2 and 603.1.4.5 need to be more specific. Section 603.1.4.3 should read <u>"Special protection systems or operating solutions."</u> What is a "remedial action plan"? Section 603.2.2 needs to be broken out to address each section (603.1.2,

 13. Do you agree with the proposed compliance monitoring process in section 603? Yes No Comments In section 603.4.1, explicitly state how the responsible entity would demonst compliance to the compliance monitor (CM). Specify the information package required. 14. Do you agree with the proposed levels of non-compliance in section 603? Yes No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604? Yes No Comments
□ No Comments In section 603.4.1, explicitly state how the responsible entity would demonst compliance to the compliance monitor (CM). Specify the information package required. 14. Do you agree with the proposed levels of non-compliance in section 603? □ Yes ☑ No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604 ☑ Yes □ No
Comments In section 603.4.1, explicitly state how the responsible entity would demonst compliance to the compliance monitor (CM). Specify the information package required. 14. Do you agree with the proposed levels of non-compliance in section 603? Yes No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604? Yes No
 compliance to the compliance monitor (CM). Specify the information package required. 14. Do you agree with the proposed levels of non-compliance in section 603? Yes No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604? Yes No
 ☐ Yes ☑ No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604. ☑ Yes ☑ No
 ☐ Yes ☑ No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604. ☑ Yes ☑ No
 No Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604. ∑ Yes No
Comments Sections 603.5.1 and 603.5.2 should be swapped. For levels 3 and 4, devel non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604 Yes No
non-compliance levels which reflect the severity of the consequences of non-compliance. 15. Do you agree with the proposed requirements and measurements in section 604 Xes No
⊠ Yes □ No
— □ No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes □ No Comments
18. Do you agree with the proposed requirements and measurements in section 605? ☐ Yes ☑ No Comments This requirement needs more specificity (e.g., for section 605.1.3.5, which margins (CBM, TRM) are anticipated). How will market impacts of the methodology be handled? Assumptions made in section 605.1.3 will greatly impact transfer capability. For section 605.1.3.3, what assumptions are made for generator outages and other contingencies? Create 3 new sections: 605.1.3.6 should define which contingencies are used, 605.1.3.7 should describe the use of operating guides and redispatch options, and 605.3.8 should address reserve sharing group limits (are they handled or not?). A new section (605.1.4) should read "The methodology required in 605.1.1 shall be technically correct (conform to good utility practice) and reference industry rating practices or other standards (e.g., IEEE, ANSI, CSA)." Section 605.1.3 requires RAs and PAs to document how their transfer capability methodology addresses topology, system demand, generation dispatch, etc. We believe that this methodology should be defined as part of this standard and any regional differences should also be documented as part of this standard and subject to industry review as part of the
standard process. 19. Do you agree with the proposed compliance monitoring process in section 605? ☑ Yes □ No
Comments
 20. Do you agree with the proposed levels of non-compliance in section 605? ☐ Yes ☑ No
Comments Section 605.5.1 should read: "Level one: The transfer capability methodology does not contain 605.1.2 or address one of the items listed in 605.1.3 or does

	t 605.1.4 (is technically incorrect does not conform to good utility practic 605.5.2.2 should read " types listed in 605.1.3 or meet 605.1.4"
	605.5.3.2 should read " types listed in 605.1.3 <u>or meet 605.1.4</u> "
	ou agree with the proposed requirements and measurements in section 6065
Yes No	
_	nts Fix typo's (they are in fact typo's, right?) in sections 606.2.1, 606.5.3, and 60
	capability methodology vs. ratings methodology).
22. Do y	ou agree with the proposed compliance monitoring process in section 606?
Yes	ou agree with the proposed compliance monitoring process in section 606?
⊠ Yes □ No	
Yes	
⊠ Yes □ No	
⊠ Yes □ No	
⊠ Yes □ No	
⊠ Yes ☐ No Comme	
⊠ Yes ☐ No Comme	nts
⊠ Yes ☐ No Comme	nts
Yes No Comment	nts

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

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SAR Commenter Information (For Individual Commenters)

Name Alan Boesch

Organization Nebraska Public Power District

Industry Segment # 1

Telephone 402-845-5210

E-mail agboesc@nppd.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Groups	. ,	
Name of Group:	Group Representative:		
	Representative Phone:		
	Representative Email:		
List of Group Participants that Support These Comments:			
Name	Company	Industry Segment #	

Background Information:

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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
\boxtimes	Yes
	No
Co	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\boxtimes	Yes
	No
Co	mments

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Ves
🗌 No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
🖂 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
☐ Yes
No
Comments In section 601,602, 603,604, 605 and 606 the requirement is to document the methodology, include the criteria to not exceed ratings and include assumptions. The measurements should reflect the requirements and the levels of non-compliance should reflect the measures. Failure to provide the documentation within a prescribed time limit is a compliance issue that should be addressed by the compliance program.
6. Do you agree with the proposed requirements and measurements in section 601?
No
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
☐ Yes ⊠ No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
No
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
Ves
No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
☐ Yes
☐ Yes
☐ Yes ⊠ No Comments
 ☐ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
☐ Yes ⊠ No Comments
 ☐ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes
 ☐ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No
 ☐ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No

13. Do you agree with the proposed compliance monitoring process in section 603?
Yes
No No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
\square No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
Comments

17. Do you	agree with the proposed levels of non-compliance in section 604?
Yes	
🛛 No	
Comments	
10 D	
T8. Do you	agree with the proposed requirements and measurements in section 605?
No No	
Comments	
19. Do vou	agree with the proposed compliance monitoring process in section 605?
☐ Yes	
🛛 No	
Comments	
20. Do you	agree with the proposed levels of non-compliance in section 605?
20. Do you	agree with the proposed levels of non-compliance in section 605?
20. Do you	agree with the proposed levels of non-compliance in section 605?
	agree with the proposed levels of non-compliance in section 605?
☐ Yes	agree with the proposed levels of non-compliance in section 605?
☐ Yes ⊠ No Comments	
 ☐ Yes ⊠ No Comments 21. Do you 	agree with the proposed levels of non-compliance in section 605? agree with the proposed requirements and measurements in section 606?
☐ Yes ⊠ No Comments	
 ☐ Yes ⊠ No Comments 21. Do you ☐ Yes 	

	22. Do you agree with the proposed compliance monitoring process in section 606?
	☐ Yes ⊠ No
	Comments
	Comments
	23. Do you agree with the proposed levels of non-compliance in section 606?
	Yes
	🖂 No
	Comments
	24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
	Comments In section 601,602, 603,604, 605 and 606 the requirement is to document the methodology, include the criteria to not exceed ratings and include assumptions. The measurements should reflect the requirements and the levels of non-compliance should reflect the measures. Failure to provide the documentation within a prescribed time limit is a compliance issue that should be addressed by the compliance program This standard seems to be overly concerned with receiving data on time.
	25. Please enter any other comments you have regarding this standard in the space below.
Co	 mments The Purpose of the Standard as currently written says" operate the bulk electric system within predefined facility and operating limits such that cascading outages, uncontrolled system separation, and voltage and transient instability are avoided." This is the definition of an IROL. IROLs are a subset of all the System Operating Limits. The Purpose should be re-worded to include all System Operating Limits. The Applicability section should define who is responsible and not use words like "such as".

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SAR Commenter Information (For Individual Commenters)

Name Tony Jankowski

Organization We Energies

Industry Segment # 4

Telephone (262) 544-7117

E-mail tony.jankowski@we-energies.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representative: Representative Phone:		
Representative Email: List of Group Participants that Support These Comments:			
Name	Company	Industry Segment #	

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

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Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Ves
🖂 No
Comments: Think only one function shall be responsible for ensuring system operating limits are established.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
No No
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 No
Comments: Believe elements of the NPCC criteria should be applicable to all. Should be able to develop a common table for an interconnect.
4. Are you aware of any other Regional differences that should be included in this

- 4. Are you aware of any other Regional differences that should be included in this standard?
- Yes
- 🔀 No
- Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).	
🖂 Yes	
No No	
Comments	
6. Do you agree with the proposed requirements and measurements in section 601?	
X Yes	
No No	
Comments	
7. Do you agree with the proposed compliance monitoring process in section 601?	
\bowtie No	
	4
Comments: 4.2.1 says self certify every 3 years. 4.3 compliance reset is 1 calendar year. Sel certify should be every year.	1
8. Do you agree with the proposed levels of non-compliance in section 601?	
b. Do you agree with the proposed revels of non-comphance in section our.	
🗌 Yes	
🖂 No	
Comments: Should not have Level 3 or 4 if no financial penalties will be enforced. All should	

9. Do you agree with the proposed requirements and measurements in section 602?
Comments
10. Do you agree with the proposed compliance manitoring process in section (022
10. Do you agree with the proposed compliance monitoring process in section 602?
\square No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-comphance in section 002.
Yes
🖂 No
Comments: See #8 If no financial penalties. Should not have compliance measures that go
Comments: See #8. If no financial penalties. Should not have compliance measures that go into financial penalty area of matrix.
into financial penalty area of matrix.
into financial penalty area of matrix. 12. Do you agree with the proposed requirements and measurements in section 603?
into financial penalty area of matrix. 12. Do you agree with the proposed requirements and measurements in section 603? Yes
into financial penalty area of matrix. 12. Do you agree with the proposed requirements and measurements in section 603?
into financial penalty area of matrix. 12. Do you agree with the proposed requirements and measurements in section 603? □ Yes
into financial penalty area of matrix. 12. Do you agree with the proposed requirements and measurements in section 603? □ Yes ☑ No
into financial penalty area of matrix. 12. Do you agree with the proposed requirements and measurements in section 603? □ Yes ☑ No

13. Do you agree with the proposed compliance monitoring process in section 603?
• • • • •
🖂 No
Comments: See #7
14. Do you agree with the proposed levels of non-compliance in section 603?
14. Do you agree with the proposed levels of non-comphance in section 605?
No
Companyantas, Colo III0 and III11
Comments: See #8 and #11
15. Do you agree with the proposed requirements and measurements in section 604?
Yes
No
Comments: Must only be RA or PA, but not both. Should not include TOP.
16. Do you agree with the proposed compliance monitoring process in section 604?
\boxtimes Yes
No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?

Yes

🔀 No

Comments: Only one function responsible to establish limits. Agree with sanctions.

18. Do you agree with the proposed requirements and measurements in section 605? Yes

No 🛛

Comments: Only one function, not both.

19. Do you agree with the proposed compliance monitoring process in section 605? Yes

🛛 No

Comments: See #7

20. Do you agree with the proposed levels of non-compliance in section 605?

Yes

🔀 No

Comments: See #8 and #11

21. Do you agree with the proposed requirements and measurements in section 606? Yes

🛛 No

Comments: See #18

	22. Do you agree with the proposed compliance monitoring process in section 606?
	No No
	Comments
	23. Do you agree with the proposed levels of non-compliance in section 606?
	🛛 Yes
	No
	Comments
	24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
	before it can be brought to ballot?
	before it can be brought to ballot? Comments: 1) Management of compliance matrix with the philosophy of no financial for documents only
	before it can be brought to ballot? Comments: 1) Management of compliance matrix with the philosophy of no financial for documents only communication of limits. 2) Requirement 603 Table I needs to be consistent within an interconnection – no regional
	before it can be brought to ballot? Comments: 1) Management of compliance matrix with the philosophy of no financial for documents only communication of limits. 2) Requirement 603 Table I needs to be consistent within an interconnection – no regional difference.
	before it can be brought to ballot? Comments: 1) Management of compliance matrix with the philosophy of no financial for documents only communication of limits. 2) Requirement 603 Table I needs to be consistent within an interconnection – no regional difference. 3) Only one function responsible for developing SOL's and transfer capabilities. 25. Please enter any other comments you have regarding this standard in the space below.
Со	before it can be brought to ballot? Comments: 1) Management of compliance matrix with the philosophy of no financial for documents only communication of limits. 2) Requirement 603 Table I needs to be consistent within an interconnection – no regional difference. 3) Only one function responsible for developing SOL's and transfer capabilities. 25. Please enter any other comments you have regarding this standard in the space
Со	before it can be brought to ballot? Comments: 1) Management of compliance matrix with the philosophy of no financial for documents only communication of limits. 2) Requirement 603 Table I needs to be consistent within an interconnection – no regional difference. 3) Only one function responsible for developing SOL's and transfer capabilities. 25. Please enter any other comments you have regarding this standard in the space below.
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SAR Commenter Information (For Individual Commenters)

Name Don Chandler

Organization CenterPoint Energy

Industry Segment # 1

Telephone 713-207-2785

E-mail

don.chandler@centerpointenergy.com

Name Richard Sikes

Organization CenterPoint Energy

Industry Segment # 1

Telephone 713-207-2395

E-mail

richard.sikes@centerpointenergy.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
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SAR Commenter Information (For Groups Submitting Group Comments)				
Name of Group: CenterPoint Energy	Group Representative: Don Chandler Representative Phone: 713-207-2785 Representative Email: Don.chandler@centerpointenergy.com			
List of Group Participants that Suppo	ort These Comments:			
Name	Company	Industry Segment #		
Don Chandler	CenterPoint Energy	1		
Richard Sikes	CenterPoint Energy	1		

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
X Yes
Comments
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X Yes
No No
Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
X Yes
No No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?

\sim	NI	~
	IN	U

Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
X Yes
Comments
6. Do you agree with the proposed requirements and measurements in section 601? X Yes
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
X Yes
Comments
Continents
8. Do you agree with the proposed levels of non-compliance in section 601?
o. Do you agree when the proposed levels of non-compliance in section 001:
X Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?

X Yes	
Comments	
	-
10. Do you agree with the proposed compliance monitoring process in section 602?	
X Yes	
Comments	
11. Do you agree with the proposed levels of non-compliance in section 602?	
11. Do you agree with the proposed levels of non-compliance in section 602?	
11. Do you agree with the proposed levels of non-compliance in section 602? X Yes	
X Yes	
X Yes	
X Yes	
X Yes No Comments	
X Yes X Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603?	
X Yes X Yes X Yes X Yes X Yes X Yes	
X Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? X Yes No	
X Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? X Yes No	

13. Do you agree with the proposed compliance monitoring process in section 603?
Comments
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Comments
15. Do you agree with the proposed requirements and measurements in section 604? X Yes
No No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes
Comments

17. D0 y0	agree with the proposed levels of non-compliance in section 604?
X Yes	
🗌 No	
Comments	
	agree with the proposed requirements and measurements in section 605
X Yes	
No No	
Comments	
	agree with the proposed compliance monitoring process in section 605?
X Yes	
🗌 No	
Comments	
20. Do you	agree with the proposed levels of non-compliance in section 605?
X Yes	
🗌 No	
Comments	
	agree with the proposed requirements and measurements in section 606
VVAC	
🗌 No	
X Yes No Comments	

22. Do you agree with the proposed compliance monitoring process in section 606	
X Yes	
Comments	
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🗌 No	
Comments	
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before it can be brought to ballot?	
Commente	
Comments	

25. Please enter any other comments you have regarding this standard in the space below.

Comments We believe the operations within the limits should be a coordinated effort in Real Time between the Reliability Authority and the Transmission Operator. This Standard does not appear to express that. We agree with the owners of the equipment setting the ratings, but we are not clear on the definitive line between ratings and limits. We do not believe that clarity is in this Standard. We believe any discussion on limits should be coordinated with the Planning Authority, Reliability Authority and Transmission Operator. We are not sure this is brought forward in this Standard. [Sikes]

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SAR Commenter Information (For Individual Commenters)

Name Tom Mielnik

Organization MidAmerican Energy Company

Industry Segment # 3

Telephone 563-333-8129

E-mail tcmielnik@midamerican.com

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- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
x Y	/es
	No
Co	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X	/es
	No
Co	mments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

x Yes

No No

Comments

4. Are you aware of any other Regional differences that should be included in this standard?

Yes

x No

Comments MidAmerican Energy Company is a member of MAPP. MAPP's current standards are consistent with the old existing NERC Standards that required the system to be planned and operated to Categories A through D. However, MidAmerican Energy believes that many members of MAPP do not comply with these standards in the operating horizon with regard to Category C and some do not comply with these standards in the planning horizon with regard to Category C. Recent MAPP adoption of new forms of NERC Standards augmented with MAPP standards were based upon the assumption that NERC required systems to operate to Category C. MidAmerican was planning on preparing waivers with a plan for compliance until MidAmerican could build additional facilities to allow Category C to be met in the planning horizon. Under the current NERC proposal, MidAmerican would urge MAPP NOT to adopt any standard which is beyond the NERC requirement. In today's environment, adoption of Category C will result in numerous TLR calls and much additional investment with potentially relatively small customer benefit. MidAmerican does believe that it makes sense to review Category C and D events for likelihood of the event and the consequences of the event. Those C and D events that are more likely, such as stuck breaker

events for a style of breaker that has been found to have the propensity to stick, or those C and D events that result in significant consequences, such as cascading outages, should be considered for inclusion in determining OSL. However, MidAmerican believes that this is the standard that NERC should adopt for all regions. This is not a standard that MAPP should adopt as a regional difference.

In any case, any MAPP regional difference that is added to this standard by NERC should be the result of a new open discussion process at MAPP recognizing that NERC is now proposing not to include C and D events in the NERC standard for setting OSL. Therefore, MidAmerican Energy asks NERC NOT to adopt a MAPP Regional Difference until MAPP conducts such a new open discussion process.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
X Yes
🗌 No
Comments
6. Do you agree with the proposed requirements and measurements in section 601? X Yes
🗌 No
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
X Yes
🗌 No
Comments

	you agree with the proposed levels of non-compliance in section 601?
X Yes	
🗌 No	
Comme	nts
9. Do	you agree with the proposed requirements and measurements in section 602
X Yes	
🗌 No	
Comme	nts
10. Do g	you agree with the proposed compliance monitoring process in section 602?
X Yes	
🗌 No	
Comme	nts
11. Do g	you agree with the proposed levels of non-compliance in section 602?
X Yes	
Comme	
Comme	
12. Do	you agree with the proposed requirements and measurements in section 603
	you agree with the proposed requirements and measurements in section 603
Yes	you agree with the proposed requirements and measurements in section 603
☐ Yes X No Comme	nts While MidAmerican, a MAPP company, agrees that the Operating Security Li
Yes X No Comme should N	

OSL.	MidAmerican suggests that NERC include Category C and D events in the standard with
the ca	veat that the likelihood and consequence of these events should be evaluated and more
likely	events or events that have significant consequences be considered for possible inclusion
in the	setting of the OSL.

13. Do you agree	with the proposed	compliance monitoring	g process in section 603?
X Yes			

No No

Comments

14. Do you agree with the proposed levels of non-compliance in section 6	i03?
X Yes	
🗌 No	
Comments	
15. Do you agree with the proposed requirements and measurements in	section 604?
X Yes	
🗌 No	
Comments	

16. Do you agree with the proposed compliance monitoring process in section 604?
X Yes
No No
Comments
17. Do you agree with the proposed levels of non-compliance in section 604?
X Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
XYes
Comments

X Yes	
🗌 No	
Comments	
21. Do you a	gree with the proposed requirements and measurements in section 606?
X Yes	
🗌 No	
Comments	
22. Do you a	gree with the proposed compliance monitoring process in section 606?
X Yes	
🗌 No	
Comments	
23 Do vou	gree with the proposed levels of non-compliance in section 606?
	gree with the proposed levels of non-comphance in section 000?

No No

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments The table providing the sanctions on page 18 requires some interpretation on the part of the reader. This table should be clarified. If possible, give some examples of what sanction applies for when to help the reader follow this table.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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SAR Commenter Information (For Individual Commenters)

Name Michael Sidiropoulos

Organization Pacificorp

Industry Segment # 1

Telephone **503-251-5246**

E-mail: michael.sidiropoulos@pacificorp.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Grou	
Name of Group:	Group Representat	ive:
	Representative Pho	one:
	Representative Email	l:
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segment #

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

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	1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
2	x Yes
	🗌 No
(Comments
	2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
1	x Yes
	No
	Comments
:	Comments 2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? x Yes No

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x Yes
□ No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
x No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
x Yes
□ No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
x Yes
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
x Yes
□ No
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
x Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
x Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
x Yes
\square \square No
Comments
11 Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
x□ Yes
x□ Yes
x Yes
x Yes
x Yes No Comments
x Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
x ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes x ☐ No
x ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes x ☐ No Comments
x Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? Yes x No Comments Suggestion: State that 1.3.1 is a minimum performance criterion. Regional councils are
x ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes x ☐ No Comments

13. Do you agree with the proposed compliance monitoring process in section 603?
x Yes
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
14. Do you agree with the proposed levels of non-comphance in section 005.
x Yes
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
x Yes
No
Comments
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
x Yes
No No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
x Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
x Yes
□ No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
x Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
x Yes
🗌 No
Comments

	ou agree with the proposed compliance monitoring process in section 606?
x Ves	
🗌 No	
Commen	ts
23. Do y	ou agree with the proposed levels of non-compliance in section 606?
x Yes	
_	
Commen	ts
	t additional clarification, details, or modifications to this standard are necess
befo	re it can be brought to ballot?
Commen	to
Commen	
	se enter any other comments you have regarding this standard in the space

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Industry Segment #

Telephone

E-mail

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- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: Tennessee Valley	Group Representat	ive: Mark A. Creech		
Authority	Representative Phone: 423.751.6264			
	Representative Email: macreech@tva.gov			
List of Group Participants that Supp	oort These Comments:			
Name	Company	Industry Segmen #		
Mitchell E. Needham	ΤνΑ	1		
Gary L. Jackson	TVA	6		

Background Information:

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1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
X N	No
statem limits,"	omments The RA, PA, and TO should jointly establish Operating Limits for their facilities. The ent "that the reliability authority has the ultimate responsibility to establish system operating should be re-written to say "that the reliability authority has the responsibility to establish ne operating limits".
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X	Yes
	No
Co	omments
3.	NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become

standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

X	Y	es	

No	

Comments

- **4.** Are you aware of any other Regional differences that should be included in this standard?
- C Yes
- X No

Comments

4	5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
2	X Yes
[
(Comments
2	 6. Do you agree with the proposed requirements and measurements in section 601? X Yes No
(Comments
,	7. Do non a mith the managed compliance manitoning masses in section (012
	7. Do you agree with the proposed compliance monitoring process in section 601? X Yes
[🗌 No
(Comments
8	8. Do you agree with the proposed levels of non-compliance in section 601?
2	X Yes
	X Yes

9. Do you agree with the proposed requirements and measurements in section 602?

2?
03?
03?
03?

X	
~	Yes
] No
С	omments
14	4. Do you agree with the proposed levels of non-compliance in section 603?
Х	Yes
] No
С	omments
Ĭ	
1	5. Do you agree with the proposed requirements and measurements in section 604?
X	Yes
] No
С	omments
	6. Do you agree with the proposed compliance monitoring process in section 604? Yes
	No
	-
0	omments

□ No Comments 18. Do you agree with the proposed requirements and measurements in section 605? ∑ Yes □ No Comments 19. Do you agree with the proposed compliance monitoring process in section 605? X Yes □ No Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes □ No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes		agree with the proposed levels of non-compliance in section 604?
Comments 18. Do you agree with the proposed requirements and measurements in section 605? \NO Comments 19. Do you agree with the proposed compliance monitoring process in section 605? X Yes \NO Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes \NO Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes \NO	X Yes	
18. Do you agree with the proposed requirements and measurements in section 605? X Yes No Comments 19. Do you agree with the proposed compliance monitoring process in section 605? X Yes No Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes No Comments	🗌 No	
□ No Comments 19. Do you agree with the proposed compliance monitoring process in section 605? X Yes □ No Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes □ No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes □ No	Comments	
□ No Comments 19. Do you agree with the proposed compliance monitoring process in section 605? X Yes □ No Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes □ No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes □ No		gree with the proposed requirements and measurements in section 605?
Comments		
19. Do you agree with the proposed compliance monitoring process in section 605? X Yes No Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes No		
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Comments 20. Do you agree with the proposed levels of non-compliance in section 605? X Yes No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes No		
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 No Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes No 	20. 20 jou	
Comments 21. Do you agree with the proposed requirements and measurements in section 606? X Yes No		
21. Do you agree with the proposed requirements and measurements in section 606? X Yes	X Yes	
X Yes	X Yes	
X Yes		
□ No	No Comments	
	No Comments 21. Do you a	gree with the proposed requirements and measurements in section 606?
Comments	No Comments 21. Do you a X Yes	gree with the proposed requirements and measurements in section 606?
	No Comments 21. Do you a X Yes No	gree with the proposed requirements and measurements in section 606?

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X Yes
□ No
Comments
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X Yes
X Yes
□ No

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- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information (For Groups Submitting Group Comments)			
Name of Group: <i>Bonneville Power</i> Administration - Tranmission Business	Group Representative: Mike Viles		
Line	Representative Photogram		
List of Group Participants that Suppo	ort These Comments:	1	
Name	Company	Industry Segment #	
Jamie Murphy	BPA	1	
Sylvia Wiggerhaus	BPA	1	
Steve Hitchens	BPA	1	
James Randall	BPA	1	
Jeff Newby	BPA	1	
Jim Gronquist	BPA	1	
Tracy Rolstad	BPA	1	
Dick Spence	BPA	1	
Brian Tuck	BPA	1	
A			

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و ا ع	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
□ Y	es
🖂 N	o
establish characte authority authority	ments If it must be assumed that the reliability authority has the ultimate responsibility to system operating limits then the roles and responsibilities have not been properly rized. The standard states that the operating limits shall be established by the reliability , planning authority, and transmission operator but does not state that the reliability is ultimately responsible for establishing the system operating limits. Clarity in the roles onsibilities is preferred over assumptions.
	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
X 🛛	es
□ N	0
Com	ments
S E	NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional

difference should be included in this standard?

\boxtimes	Yes
-------------	-----

No

Comments Defining NPCC is requested..

4. Are you aware of any other Regional differences that should be included in this standard?

🛛 Yes

No No

Comments Not all regions determine Transfer Capabilities. This standard should not make Transfer Capabilities a requirement if they are not needed for reliable operation of the transmission system.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
□ No
Comments
 6. Do you agree with the proposed requirements and measurements in section 601? ☑ Yes ☑ No Comments The transmission owner and generator owners are given sole responsibility for documenting the methodology for rating facilities in sections 601 and 602 of this standard.
There are situations where the transmission operator or generator operator are in a better position to provide that information. Joint ownership of facilities is an example where that may be true
7. Do you agree with the proposed compliance monitoring process in section 601?
 7. Do you agree with the proposed compliance monitoring process in section 601? Yes
⊠ Yes
⊠ Yes □ No
⊠ Yes □ No
⊠ Yes □ No
☐ Yes ☐ No Comments
∑ Yes ☐ No Comments 8. Do you agree with the proposed levels of non-compliance in section 601?

🛛 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
Comments Suggest switching 4.1 and 4.2 so the more frequent response is listed first.
11. Do you agree with the proposed levels of non-compliance in section 602?
Yes
No
Comments
Comments
Comments 12. Do you agree with the proposed requirements and measurements in section 603?
Comments 12. Do you agree with the proposed requirements and measurements in section 603? Yes No
Comments 12. Do you agree with the proposed requirements and measurements in section 603? Xes
Comments 12. Do you agree with the proposed requirements and measurements in section 603? Yes No

13. Do you agree with the proposed compliance monitoring process in section 603?
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
14. Do you agree with the proposed levels of non-comphance in section 005:
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
No
Commente la contien 2.2 it is requested that the exhadule established to provide the energing
Comments In section 2.2 it is requested that the schedule established to provide the operating limits be established on a schedule that is agreed to by all the participants. As it presently
reads, an unreasonable schedule could set by those not providing the limits.
16. Do you agree with the proposed compliance monitoring process in section 604?
🛛 Yes
Comments Suggest switching 4.1 and 4.2 so the more frequent response is listed first.
Comments Suggest switching 4.1 and 4.2 so the more nequent response is listed lifst.

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🛛 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

 22. Do you agree with the proposed compliance monitoring process in section 606? ☐ Yes ☐ No Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
🖂 Yes
Comments Suggest switching 4.1 and 4.2 so the more frequent response is listed first.
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments It is suggested to add a couple of examples to work through for the Sanctions Tables. It would make it easier to understand how the Tables work together. Titles for the sanction tables are suggested.

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:
List of Group Participants t	Representative Emai hat Support These Comments:	
Name	Company	Industry Segment
		#

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🗌 Yes
X No
Comments:
Section 604 1.1 states that "The reliability authority, planning authority and transmission operator shall establish system operating limits for the areas for which they are responsible". This statement does not establish who has the "ultimate" responsibility for establishing SOLs.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? X Yes
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional
standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
<pre>standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?</pre>
<pre>standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No</pre>
 standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? □ Yes X□ No Comments: NPCC is seeking to establish a standard that is more stringent than the NERC standard. The NERC standard should be developed to apply to all regions wherever possible. If a region desires to establish a more stringent standard for their individual region they should develop it as a regional standard outside the NERC Reliability Standard process. Conversely, regions should not develop
 standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No Comments: NPCC is seeking to establish a standard that is more stringent than the NERC standard. The NERC standard should be developed to apply to all regions wherever possible. If a region desires to establish a more stringent standard for their individual region they should develop it as a regional standard outside the NERC Reliability Standard process. Conversely, regions should not develop standards that would be less stringent than the NERC Reliability Standards. The regional difference prevision should be reserved for parts of a standard that do not apply and
 standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No Comments: NPCC is seeking to establish a standard that is more stringent than the NERC standard. The NERC standard should be developed to apply to all regions wherever possible. If a region desires to establish a more stringent standard for their individual region they should develop it as a regional standard outside the NERC Reliability Standard process. Conversely, regions should not develop standards that would be less stringent than the NERC Reliability Standards. The regional difference prevision should be reserved for parts of a standard that do not apply and not be implemented by a region. 4. Are you aware of any other Regional differences that should be included in this
 standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes X No Comments: NPCC is seeking to establish a standard that is more stringent than the NERC standard. The NERC standard should be developed to apply to all regions wherever possible. If a region desires to establish a more stringent standard for their individual region they should develop it as a regional standard outside the NERC Reliability Standard process. Conversely, regions should not develop standards that would be less stringent than the NERC Reliability Standards. The regional difference prevision should be reserved for parts of a standard that do not apply and not be implemented by a region. 4. Are you aware of any other Regional differences that should be included in this standard?
<pre>standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?</pre>

Policies and could remain in effect after the transition to Reliability Standards.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
X No
Comments:
Using a common methodology for determine all values is as important as determining the values and communicating them and should have financial penalties associated with it.
6. Do you agree with the proposed requirements and measurements in section 601? X□ Yes
Comments:
In 601 2.1 the methodology used to determine values must be provided within 15 business days of request. We do not understand why it would take 15 days to provide a pre-established methodology. It could be a document that would be posted on a Transmission Owners website. We do not envision that the methodology would change very often once established.

7. Do you agree with the proposed compliance monitoring process in section 601?
$X \square$ Yes
Comments:
Actually compliance verification by the compliance monitor at least once every ten years may be to long of a minimum period.
8. Do you agree with the proposed levels of non-compliance in section 601?
X Yes
\square No
Comments:
It would be helpful if a "table" illustrating the levels of non-compliance were added to this section.
9. Do you agree with the proposed requirements and measurements in section 602?
X Yes
🗌 No
Comments:
Section 602 2.2 requires the responsible entity to provide facility ratings to the RA, PA and TO
on a schedule established by the RA, PA or TO. This will lead to many varying schedules and
may become confusing. Maybe the values need to be communicated initially and then by
exception each time a change is made or a new facility is added.
10. Do you agree with the proposed compliance monitoring process in section 602?
X Yes

🗌 No

Comments

11. Do you agree with the proposed levels of non-compliance in section 602? X Yes
Comments:
It would be helpful if a "table" illustrating the levels of non-compliance were added to this section.
12. Do you agree with the proposed requirements and measurements in section 603?
X Yes
Comments:
In 603 2.1 the methodology used to determine values must be provided within 15 business days of request. We do not understand why it would take 15 days to provide a pre-established methodology. It could be a document that would be posted on a Transmission Owners website. We do not envision that the methodology would change very often once established.
 13. Do you agree with the proposed compliance monitoring process in section 603? X Yes No
Comments:
Actually compliance verification by the compliance monitor at least once every ten years may be to long of a minimum period.

14. Do you agree with the proposed levels of non-compliance in section 603?

X Yes

🗌 No

Comments:

It would be helpful if a "table" illustrating the levels of non-compliance were added to this section.

<mark>15</mark>	. Do you agree with the proposed requirements and measurements in section	604?
хΓ] Yes	

No No

Comments:

(Same comment as question 1)

Section 604.1.1.1 states that "The reliability authority, planning authority and transmission operator shall establish system operating limits for the areas for which they are responsible". This statement does not establish who has the "ultimate" responsibility for establishing SOLs.

16. Do you agree with the proposed compliance monitoring process in section 604?
Comments:
17. Do you agree with the proposed levels of non-compliance in section 604?
X Yes
🗌 No
Comments:
It would be helpful if a "table" illustrating the levels of non-compliance were added to this
section.
18. Do you agree with the proposed requirements and measurements in section 605?
Comments:
In 605 2.1 the methodology used to determine values must be provided within 15 business days of request. We do not understand why it would take 15 days to provide a pre-established
methodology. It could be a document that would be posted on a Transmission Owners
website. We do not envision that the methodology would change very often once established.

19. Do you agree with the proposed compliance monitoring process in section 605?

X Yes

No No

Comments:

Actually compliance verification by the compliance monitor at least once every ten years may be to long of a minimum period.

20	Do	voli 901	ree with	the pro	nosed le	vels of n	on-comn	liance in	section (6052
40.	DU	you agi		une pro	poscu ic		un-comp	mance m		

X Yes

No No

Comments:

It would be helpful if a "table" illustrating the levels of non-compliance were added to this section.

21. Do you agree with the proposed requirements and measurements in section 606? X Yes

□ No

Comments:

We agree with the general concept but with several questions and ideas.

Section 606 1.1 requires the RA or PA to "establish and provide transfer capabilities requested by their associated RA, PA, TO, TP and NERC and it's regions". Please confirm that the term "associated RA" refers to other or adjacent RA's in the same interconnection. The standard should also allow the RA or PA to recommend to the "associated RA, PA, TO, TP and NERC and it's regions" standards that it fells needs to be developed that have not been identified.

Section 606 2.2 requires the responsible entity to provide facility ratings to NERC and It's regions, the RA, PA TSP, and TO on a schedule established by NERC and It's regions, the RA, PA TSP, and TO. This will lead to many varying schedules and may become confusing. Maybe the values need to be communicated initially and then each time a change is made or a new facility is added.

22. Do you agree with the proposed compliance monitoring process in section 606? X Yes

No

Comments

23. Do you agree with the proposed levels of non-compliance in section 606?

X Yes

No No

Comments:

It would be helpful if a "table" illustrating the levels of non-compliance were added to this section.

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments:

The standard should note in the "Purpose" that it is not the intent of the standard to "standardize" methodologies of determining ratings but to document and make available the individual methodologies that were used.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Susan Morris

Organization SERC

Industry Segment # 2

Telephone (423) 843-2358

E-mail smorris@serc1.org

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information	(For Groups Submitting Grou	up Comments)
Name of Group:	Group Representat	ive:
	Representative Pho	one:
	Representative Email	l:
List of Group Participants th	at Support These Comments:	
Name	Company	Industry Segment #
Bill Reinke	SERC	2

Sam Stryker	Fayetteville PWC	3, 4, & 5
John Stickley	AECI	1
Carter Edge	SEPA	4 & 5
John Troha	SERC	2
Tim Ponseti	TVA	1
Bill Thompson	Dominion Transmission	1

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values *requested by the users* of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?

Yes

🛛 No

Comments: It appears that question 1 is inconsistent with 604.1.1. However, the Transmission Owner has the ultimate responsibility to establish system operating limits which is a result of its fiduciary responsibility for its owned facilities. The Transmission Owner has ultimate responsibility and liability for owning, maintaining and operating its facilities. The Transmission Owner, then, is ultimately responsible for establishing system operating limits. While the Transmission Owner may voluntarily contract to have some other entity (function) perform some of the operations needed to ensure that fiduciary responsibility, it is the Transmission Owner that has ultimate responsibility. Neither NERC standards nor the Functional Model can allocate or transfer that responsibility to the RAs. Transmission Owners subject to state jurisdiction must typically obtain state regulatory approval to transfer control or operational authority over jurisdictional facilities to third parties. Forcing Transmission Owners to allow a third party, such as the RA, to cede ultimate responsibility for establishing system limits could trigger the need for state regulatory approvals. However, the Transmission Owners may voluntarily contract some functional responsibilities to other entities, like the RA, TOP, and TSP, but the ultimate responsibility would still reside with the Transmission Owner.

System operating limits (and interconnection reliability operating limits) are the lesser of the thermal, stability and voltage limits. The determination of each of these limits resides with different entities (functions). Equipment thermal limits and the thermal-based value of Tv for that equipment are the responsibility of the Transmission Owners. (For instance, a Transmission Owner might have dynamic thermal line ratings on specific transmission lines which are the responsibility of the TO.) Stability limits and associated value of Tv are the responsibility of the RA in the short-term horizon and the PA in the long-term horizon. Voltage limits are a responsibility shared by all three entities (functions). Therefore, we believe it is incorrect to say that any one entity (function) has ultimate responsibility to establish system operating limits. We also believe it is incorrect to say that any one entity (function) has ultimate responsibility to establish Interconnection Reliability Operating Limits.

We suggest the above reasoning be used to revise this standard, the Operate Within IROL standard, and all other standards.

- 2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
- 🛛 Yes
- No No

Comments

 3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes No
Comments: Regional difference should be accommodated so long as they are not detrimental
to the Interconnection. However, having those differences incorporated into the NERC standards seems ripe for introducing confusion into the NERC standards. If the region's have differences they should be documented in separate regional documents (like the SERC supplements), and reviewed by NERC to ensure they do not relax the NERC standards. Having NPCC shown with a table IA in the NERC standard, which more closely resembles the original IA Standard table, just stands out like a sore thumb.
4. Are you aware of any other Regional differences that should be included in this standard?
⊠ Yes
Comments: Any "methodology" for establishing ratings, operating limits, and / or transfer capabilities may have individual owner differences as well as Regional differences. This should be stated under the Regional Differences Section for each standard requiring the documentation of methodologies.
5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
for methodology violations, nominal fixed monetary penalties for failure to
for methodology violations, nominal fixed monetary penalties for failure to communicate values).
for methodology violations, nominal fixed monetary penalties for failure to communicate values).
for methodology violations, nominal fixed monetary penalties for failure to communicate values). ∑ Yes ☐ No Comments 6. Do you agree with the proposed requirements and measurements in section 601?
for methodology violations, nominal fixed monetary penalties for failure to communicate values). ∑ Yes ☐ No Comments 6. Do you agree with the proposed requirements and measurements in section 601? Yes
for methodology violations, nominal fixed monetary penalties for failure to communicate values). ∑ Yes ☐ No Comments 6. Do you agree with the proposed requirements and measurements in section 601?
for methodology violations, nominal fixed monetary penalties for failure to communicate values). □ Yes □ No Comments 6. Do you agree with the proposed requirements and measurements in section 601? □ Yes □ No

listed on page 5 of the SAR.

7.	Do you agree with the proposed compliance monitoring process in section 601?
	Yes

No No

Comments

8.	Do you agree	with the propo	<mark>sed levels of non</mark> -	-compliance in	section 601?
0.	Do you agree	with the propo	scu icycls of non-	-compnance m	Section 001.

🛛 Yes

No No

Comments: However, section 601.1.4 (proposed in comments to question 6) should be incorporated into the Levels of Non-Compliance.

9. Do you agree with the proposed requirements and measurements in section 602?Yes

🖂 No

Comments The "Transmission Service Provider" should be added to the RA, PA, and TOP in 602 sections 1.2 and 2.2.

 10. Do you agree with the proposed compliance monitoring process in section 602? ☑ Yes ☑ No Comments 	
11. Do you agree with the proposed levels of non-compliance in section 602?	
☑ Yes ☑ No Comments	
 12. Do you agree with the proposed requirements and measurements in section 603? Yes No Comments: Wording needs to be included that the level of performance specified is a minimu and that more stringent criteria for individual transmission providers or regions are permissible Many of the Transmission Owners/Providers in SERC plan beyond N-1 criteria. Many SERC Members feel that adherence to 603 as written without this wording will result in reduced reliability in the SERC region. The requirements of 603 section 1.3 should be modified to include the following statement: "Table I contains a minimum level of performance. Some Transmission Owners and or regions plan for operations beyond 	
the N-1 criteria shown in Table I." The Transmission Owner has the ultimate responsibility to establish system operating limits which is a result of its fiduciary responsibility for its owned facilities. The Transmission Owner has ultimate responsibility and liability for owning, maintaining and operating its facilities. The Transmission Owner, then, is ultimately responsible for establishing system operating limits. While the Transmission Owner may voluntarily contract to have some other entity (function) perform some of the operations needed to ensure that fiduciary responsibility, it is the Transmission Owner that has ultimate responsibility. Neither NERC standards nor the Functional Model can allocate or transfer that responsibility to the RAs. Transmission Owners subject to state jurisdiction must typically obtain state regulatory approval to transfer control of operational authority over jurisdictional facilities to third parties. Forcing Transmission Owners to allow a third party, such as the RA, to cede ultimate responsibility for establishing system limits could trigger the need for state regulatory approvals. However, the Transmission Owner may voluntarily contract some functional responsibilities to other entities, like the RA, TOP, and TSP, but the ultimate responsibility would still reside with the Transmission Owner.	s or s ers

Please add TOs and TSPs to the requirements 603 section 1.1 for documenting the methodology used for determining system operating limits, as the draft standard only indicates RAs, PAs, and TOPs.

13. Do you agree with the	proposed compliance monitor	ing process in section 603?
🛛 Yes		

No

Comments

14. Do you agree with the proposed levels of non-compliance in section 603?
⊠ Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
Comments: The Transmission Owner has the ultimate responsibility to establish system operating limits which is a result of its fiduciary responsibility for its owned facilities. The Transmission Owner has ultimate responsibility and liability for owning, maintaining and operating its facilities. The Transmission Owner, then, is ultimately responsible for establishing system operating limits. While the Transmission Owner may voluntarily contract to have some other entity (function) perform some of the operations needed to ensure that fiduciary responsibility, it is the Transmission Owner that has ultimate responsibility. Neither NERC standards nor the Functional Model can allocate or transfer that responsibility to the RAs. Transmission Owners subject to state jurisdiction must typically obtain state regulatory approval to transfer control or operational authority over jurisdictional facilities to third parties. Forcing Transmission Owners to allow a third party, such as the RA, to cede ultimate responsibility for establishing system limits could trigger the need for state regulatory approvals. However, the Transmission Owners may voluntarily contract some functional responsibilities to other entities, like the RA, TOP, and TSP, but the ultimate responsibility would still reside with the Transmission Owner.

Please add TOs and TSPs to the requirements 604 section 1.1 for establishing the system

operating lin	
	nits, as the draft standard only indicates RAs, PAs, and TOPs.
which they a	nents of 604 section 1.2 limit distribution of system operating limits to the "area four re responsible". All of the specified entities should provide the limits to all the oth tities in the list. We suggest the following wording for requirements 1.2:
transn	e reliability authority, planning authority(ies), transmission operator(s), nission service provider(s), and transmission owner(s) shall provide all system ting limits to each of the other functions (entities) in this list.
	es for 604 seem satisfactory so long as the functional entities are changed to be ith the statements above.
16 Do you	agree with the proposed compliance monitoring process in section 604?
X Yes	agree with the proposed compnance monitoring process in section 604.
— No	
	Change the functional entities to be consistent with the comments to question 15 e requirements and measures. (add references to TOs and TSPs)
17. Do vou	agree with the proposed levels of non-compliance in section 604?
200 200 300	
🛛 Yes	
_	
	Change the functional entities to be consistent with the comments to question 15 e requirements and measures. (add references to TOs and TSPs)
above for the	
above for the	e requirements and measures. (add references to TOs and TSPs)
above for the 18. Do you	e requirements and measures. (add references to TOs and TSPs)
above for the 18. Do you ☐ Yes ☑ No Comments: should own a for various ti	agree with the proposed requirements and measurements in section 605? Transfer capability can also be determined by the TSP(s). The RA and PA(s) and be responsible for the methodologies used to determine transfer capabilities me horizons; however, the actual calculations for transfer capability can be y the TSP(s) if necessary to administer the tariff. In this case, the TSP(s) must
above for the 18. Do you ☐ Yes ☑ No Comments: should own for various ti performed b follow the me	agree with the proposed requirements and measurements in section 605? Transfer capability can also be determined by the TSP(s). The RA and PA(s) and be responsible for the methodologies used to determine transfer capabilities me horizons; however, the actual calculations for transfer capability can be y the TSP(s) if necessary to administer the tariff. In this case, the TSP(s) must
above for the 18. Do you ☐ Yes ☑ No Comments: should own for various ti performed b follow the me Section 1.1.	agree with the proposed requirements and measurements in section 605? Transfer capability can also be determined by the TSP(s). The RA and PA(s) and be responsible for the methodologies used to determine transfer capabilities me horizons; however, the actual calculations for transfer capability can be y the TSP(s) if necessary to administer the tariff. In this case, the TSP(s) must ethodology.

In section 3 - Regional Differences, please state that Regional differences will exist and will be
specified in the methodology whether originating with requirements of the TO(s), TSP(s), RA or
PA(s).

19. Do you agree with the proposed compliance monit	toring process in section 605?
🖂 Yes	

No No

Comments

20. Do you agree with the proposed levels of non-compliance in section 605?
🛛 Yes
No No
Comments:
21. Do you agree with the proposed requirements and measurements in section 606?
⊠ No
Comments Add the following sentence to section 1.1.1:
The TSP(s) can also establish and provide transfer capabilities in accordance with the methodologies determined by the RA and the PA(s), respectively.

22. Do you agree with the proposed compliance monitoring process in section 606?
🛛 Yes
□ No
Comments

23. Do you agree with the proposed levels of non-compliance in section 606?

\triangleleft	Yes	

Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments:

- 1. Recommend that a definition be added for "performance-reset period."
- 2. Footnote "d" to Table I on page 7 is not correct. It appears that the wrong footnote was copied from Table I of NERC Planning Standards I.A. The correct footnote should be the same as footnote "e" to the NPCC Table IA which reads: "Normal clearing is when the protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer (CT), and not because of an intentional design delay."
- 3. The Sanctions Table on page 18 needs further clarification. Examples of its application may be useful.
- 4. The SDT should consider modifying 601 and 602 to require that there be consistency in the ratings and the rating methodology. Not consistency from facility to facility, since there are so many variables among facilities, but consistency in ratings from submission to submission. In other words, the planning and/or emergency rating of a facility should be the same whether NERC is asking, or FERC, the State Utilities Commission, a neighboring utility, an IPP, or a marketing participant.

25. Please enter any other comments you have regarding this standard in the space below.

Comments: We are becoming increasingly concerned about this standard development process. This and other standards are being developed based on certain definitions and assumptions contained in the Functional Model. These "standards" will become fixed such that the industry will be held accountable to and measured by these standards. However, the Functional Model and the definitions contained in that revised model are changing and will not necessarily be the same as those used to develop the standards. What is the process for reviewing, revising and implementing changes to the Functional Model, and the impact of those changes on all these standards that have been developed based on the old Functional Model? Are the changes to the Functional Model being vetted by all industry participants before implementation? What is the process to revise these standards prior to implementing changes to the Functional Model?

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Gerald Rheault

Organization Manitoba Hydro

Industry Segment # 1,3,5,6

Telephone 204-487-5423

E-mail gnrheault@hydro.mb.ca

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	
	Representative Emai	
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segmen #

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
Yes
Comments The Functional Model assigns responsibility for developing operating limits to the RA therefore this Standard is consistent with the Model and the responsibility has been properly assigned.
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
Comments
 3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes No

Comments Manitoba Hydro agrees with the table in 603 and sees no justification for going further. The treatment of more than first contingency must be consistent with the rationale for investment in the system. It is fine to consider levels C and D in system studies but NOT in the establishment of system limits. When a Region wants to establish one that is more stringent, this should be established as a regional Standard only. NERC should set the minimum reliability Standards for the entire grid. A Region can't be less stringent than NERC but they can be more stringent. This region can monitor the entities within the region for the more stringent regional Standard. In this case when the regional entities are compliant with the more stringent regional Standard they are also compliant with the NERC Standard.

4. Are you aware of any other Regional differences that should be included in this standard?

C Yes

No

Comments In its submission, MAPP has indicated they have a Regional difference referenced as table 1 at the end of their comments submitted for this Standard. Manitoba Hydro has reservations in endorsing this proposed Regional difference and believes there is a need for further review by all MAPP members and the MAPP Regional Reliability Council before this table can be

declared a Regional difference in this Standard.
5. Do you agree with the sanction philosophy in this standard? (No financial penalties
for methodology violations, nominal fixed monetary penalties for failure to
communicate values).
Yes
□ No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Yes
Comments Manitoba Hydro believes that item 601.1.3 should explicitly include current transformers, wave traps, circuit breakers, switches, bus work and relay load limits
7. Do you agree with the proposed compliance monitoring process in section 601?
Yes
□ No
Comments The wording on the compliance monitoring process is perhaps too loose. For

Comments The wording on the compliance monitoring process is perhaps too loose. For example in the wording in 601.4.1 (responsible entity shall demonstrate compliance to the compliance monitor within the first year) can be interpreted to mean that the entities will be required to show compliance within the first week or first month after the Standard comes into effect. Is this what was intended,

8. Do you agree with the proposed levels of non-compliance in section 601?
Yes
Comments The wording in 5.1 could be changed from "methodology does not contain 601.1.2 or address" to "methodology does not contain 601.1.2 or does not address" for clarity
9. Do you agree with the proposed requirements and measurements in section 602?
Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602? Yes
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
Yes
Comments The wording in 5.1 could be changed from "methodology does not contain 601.1.2 or address" to "methodology does not contain 601.1.2 or does not address" for clarity

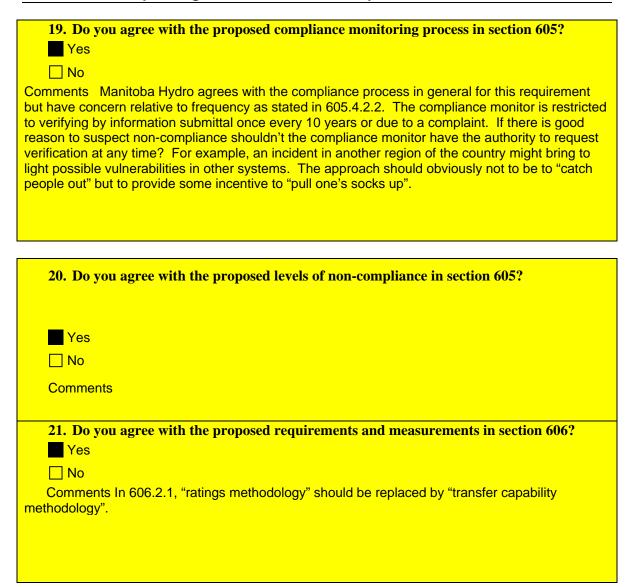
12. Do you agree with the proposed requirements and measurements in section 603?

Yes
Comments Manitoba Hydro agrees with the methodology presented in 603.1.3 but believes that the wording should be changed from "the system operating limits are established such that operation within the system operating limit would avoid system performance outside that prescribed in Table I below" to " the system operating limits be developed so that operation within the system operating limits be developed so that operation within the system operating limit will provide performance consistent with that prescribed in Table I below."
Also Requirement 603.1.3 (which includes Table 1), should address the need for actual system performance to meet performance standards. If events show that a system was operated to unsafe operating limits due to inadequate methodology, there should be a requirement to review and revise the methodology.
The Transmission Provider should have the freedom to plan and operate beyond n-1 criteria if required for local reliability issues. The performance level listed in 603.1.3 should be clearly indicated as being the minimum requirements.
The footnote entitled d) as part of 603.1.3 does not appear to align with the statement it is applied to (Single Pole Block Normal Clearing) – the correct reference is footnote f) in the original NERC Table 1.
In the NPCC table, there is a footnote f) but the reference to this footnote in the table is not correct. The Cascading Outages column should be footnoted as c) Again the NERC table was edited incorrectly.
13. Do you agree with the proposed compliance monitoring process in section 603? Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
Yes

No

Comments

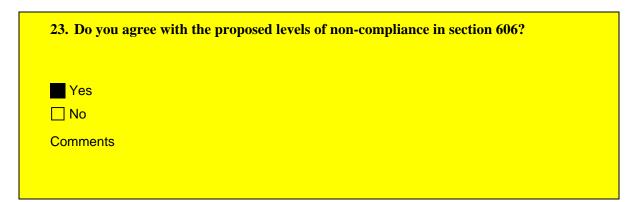
/ a
y a



22. Do you agree with the proposed compliance monitoring process in section 606? Yes

No

Comments In 606.4.4 the phrase "...until the deficiencies resulting in noncompliance" should be changed to "...until the deficiencies determined in the findings of non-compliance..."



24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments Manitoba Hydro offers the following general comments relative to this Standard:

- There is a requirement to address coordination between connected Reliability Authority areas in determining Transfer Capability which is not included in this standard. What if the connected entities responsible for determining Transfer Capability use different methodologies and disagree on the Transfer Capability? Coordination raises many difficult issues and not addressing it will leave a gap in procedure to achieve reliability. This concern should be addressed in this Standard or another Standard to be developed in parallel to this one. It should not be left up to the parties to work out themselves but should be defined in a Standard.

- This Standard is successful in addressing the scope defined by the SAR. The overall structure should promote reliability provided equipment ratings and operating limits are valid. However, the approach contained in this standard raises concerns about its effectiveness to meet the stated purpose in 600.1 The main teeth in the document to achieve valid operating limits are in Table 1. System studies are not applied consistently in the industry. Requirement 603.1.3 by itself would promote more consistent application of studies. However, this step forward is thwarted by the definition of "System Operating Limit" which says "as determined through system studies and/<u>or operational experience</u>." There is very little requirement regarding the content of the methodologies (except Table 1). This is probably to avoid forcing the expenditure of resources (studies, staff, and tools) without justification. As a result, reliability will still depend on the momentum of "good industry practice", i.e., the mindset of those individuals responsible for reliability and their ability to influence the rest. Depending on the "teeth" left in the standard (as a legal document), it may only be good for preaching to the choir. I sense the choir is thinning out these days relative to the congregation.

- A NERC standard is a form of legal document – it spells out the standards, the measurements, the levels of compliance and the penalties for non-compliance. As such, there should be no ambiguity, so any term defined by NERC should be clearly identified in the standard (capitalized, bold, etc.) where it is used as a defined term, or NERC must certify that all uses of a defined word are a reference to the defined term.

-

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

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Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Peter Burke [on behalf of ATC's Dave Cullum, Dale Burmester, David Smith, and Paul Steinberger]

Organization American Transmission Company

Industry Segment # 1

Telephone 262-506-6863

E-mail PBurke@atcllc.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2-RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Gro	
Name of Group:	Group Representat	ive:
	Representative Pho	
	Representative Emai	
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segment #

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🖂 Yes
□ No
Comments The draft standard mentions generator owners/operators which is not mentioned in this question.
Is it the intent of this standard to address ATC calculations? If not, this standard should not include a requirement for Transmission Owners to provide system operating limits to Transmission Service Providers.
This standard might be improved by adding the phrase "provide as needed." This standard also includes a requirement for documentation of margins used in the calculation of system operating limits - isn't that also related to transmission service and potentially not appropriate for this standard?
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
Comments
 3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Yes
No No
Comments If it not mentioned in the standard then the other regions would not really know what differences apply.
4. Are you aware of any other Regional differences that should be included in this standard?

☐ Yes ⊠ No

Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
X Yes
Comments Please consider a 30 day period when records are requested. Fifteen days is really tight considering vacation schedules of responsible employees and other delays.
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?	
🛛 🔀 Yes	
No No	
Comments	
10. Do you agree with the proposed compliance monitoring process in section 602?	
🛛 🔀 Yes	
Comments	
11. Do you agree with the proposed levels of non-compliance in section 602?	
11. Do you agree with the proposed levels of non-compliance in section 602?	
11. Do you agree with the proposed levels of non-compliance in section 602?	
11. Do you agree with the proposed levels of non-compliance in section 602?	
⊠ Yes □ No	
⊠ Yes	
 ☑ Yes ☑ No Comments 	
⊠ Yes □ No	
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? 	
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☐ No 	
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes 	
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☐ No 	
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☐ No 	

4.4.5	
	you agree with the proposed compliance monitoring process in section 603?
🛛 Yes	
🗌 No	
Comme	ents Might it be reasonable to mention generator owners?
14. Do	you agree with the proposed levels of non-compliance in section 603?
🛛 Yes	
🗌 No	
Comme	ents
001111	
15. Do	you agree with the proposed requirements and measurements in section 604?
X Yes	
_	
	ents The limits might need to be conveyed to NERC Regions for their use, especially if
they an	e providing RA services.
16. Do	you agree with the proposed compliance monitoring process in section 604?
🛛 Yes	
□ No	
Comme	ents

	Do you agree with the proposed levels of non-compliance in section 604?
	Yes
	No
Co	mments
10	
	Do you agree with the proposed requirements and measurements in section 605? Yes
_	
Co	mments Possibly allow for the Transmission Owner to help determine methodology.
	Do you agree with the proposed compliance monitoring process in section 605? Yes
_	
Co	mments
20.	Do you agree with the proposed levels of non-compliance in section 605?
20.	Do you agree with the proposed levels of non-compliance in section 605?
	Yes
	Yes No
	Yes
⊠ □ Coi	Yes No mments
Cor 21.	Yes No mments
Cor 21.	Yes No mments Do you agree with the proposed requirements and measurements in section 606? Yes
 □ Con 21. □ 	Yes No mments Do you agree with the proposed requirements and measurements in section 606? Yes

22. Do you agree with the proposed compliance monitoring process in section 606?
🛛 Yes
\square \square No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
23. Do you agree with the proposed levels of non-compliance in section 606?
23. Do you agree with the proposed levels of non-compliance in section 606?
23. Do you agree with the proposed levels of non-compliance in section 606?
⊠ Yes

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments There are places within this draft standard that imply, for instance, that a thermal overload is not a violation if it does not lead to cascading outages or instability. Generally, shouldn't it be true that an overload is a violation of a limit regardless whether that leads to more serious consequences - that this standard should focus on how limits are calculated without regard to how the system operates?

It appears that this proposed standard will apply NERC Table I, Category A and B criteria from the original Planning Standards to whatever the current operating condition is at the time. In other words, a prior outage condition (category B by Planning standards) now becomes the category A, normal condition, in preparing the system to meet the next contingency. We need to be sure that the footnotes under the "Loss of Demand or Curtail Firm Transfers" column allow operators to shed firm load and firm transfers under appropriate conditions. Footnote b attempts to do this for category B, but it's not certain whether it covers all our concerns under the Category A or B conditions that the system might be in at any given time. The Table I in the original Planning Standards did provide for planned shedding of firm load/transfers to meet criteria under Category C (N-2+) conditions. Also, the draft standard does not make certain that after the system experiences a category B event, operations must adjust to handle the next event under category B criteria, instead of the category C based on Planning criteria.

Finally, it looks like footnote d was intended to have the wording from footnote e in NPCC's table I instead of the existing wording and that footnote d needs to be added everywhere "Normal Clearing" shows up in the table.

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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SAR Commenter Information (For Individual Commenters)

Name Kirit Shah

Organization Ameren

Industry Segment # 1

Telephone 314-554-3542

E-mail kshah@ameren.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	
	Representative Emai	
List of Group Participants t	hat Support These Comments:	
Name	Company	Industry Segmen #

Background Information:

Notes to Industry Commenters:

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🖂 Yes
No No
Comments
 2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? ☐ Yes ☐ No Comments: This standard includes determining system operating limits for both real-time operations and planning studies. We believe that standard to determine system operating limits and ratings for planning studies should be seperated.
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\boxtimes	No

Comments: The standard should define minimum criteria which should be met by all NERC regions. NERC Regions can have their own criteria which could be more stringent then the NERC criteria.

4.	Are you aware of any other Regional differences that should be included in this
	standard?

- 🗌 Yes
- 🛛 No

Comments

5	Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
D	Yes
C] No
C	omments
	Do you agree with the proposed requirements and measurements in section 601?
] Yes] No
	omments: 601.1.3 should include wave traps and relay limts.
	oniments. 601.1.5 should include wave traps and relay limits.
7	. Do you agree with the proposed compliance monitoring process in section 601?
	Yes
D	☑ No
	comments: Yes to all except 4.2.3 Which party can complaint? Is it same as included in
6	02.4.3.? If yes, include it in 601.4.2.3.
8	. Do you agree with the proposed levels of non-compliance in section 601?
Б	₫ Yes
_] No
	- romments

	9. Do you agree with the proposed requirements and measurements in section 602?
	🛛 Yes
	Comments
	10. Do you agree with the proposed compliance monitoring process in section 602?
	🛛 Yes
	Comments
L	
I	11. Do you agree with the proposed levels of non-compliance in section 602?
	11. Do you agree with the proposed levels of non-compliance in section 602?
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	⊠ Yes □ No
	⊠ Yes
	⊠ Yes □ No
	☑ Yes ☑ No Comments
	 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
	 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☑ No Comments: In operation, a previous contingent outage (presumably not scheduled) could
	Yes No Comments 12. Do you agree with the proposed requirements and measurements in section 603? Yes No

13. Do you agree with the proposed compliance monitoring process in section 603?
\boxtimes Yes
\square No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 No
Comments Need clarification
15. Do you agree with the proposed requirements and measurements in section 604?
Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
\square No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604? □ Yes □ No Comments 18. Do you agree with the proposed requirements and measurements in section 605? □ Yes ○ No Comments: Transfer Capability should be split as a seperate standard. 19. Do you agree with the proposed compliance monitoring process in section 605? □ Yes ○ No Comments: See comments #18. 20. Do you agree with the proposed levels of non-compliance in section 605? □ Yes ○ No Comments: See comments #18. 21. Do you agree with the proposed requirements and measurements in section 606? ○ Yes ○ No Comments: See comments #18. 21. Do you agree with the proposed requirements and measurements in section 606? ○ Yes ○ No Comments: Assuming that the requested transfer capability would be property defined.	□ Yes □ No Comments 18. Do you agree with the proposed requirements and measurements in section 605? □ Yes □ No Comments: Transfer Capability should be split as a seperate standard. 19. Do you agree with the proposed compliance monitoring process in section 605? □ Yes □ No Comments: See comments #18. 20. Do you agree with the proposed levels of non-compliance in section 605? □ Yes □ No Comments: See comments #18. 21. Do you agree with the proposed requirements and measurements in section 606? □ Yes □ No Comments: See comments #18. 21. Do you agree with the proposed requirements and measurements in section 606? □ Yes □ No	17 Do you	area with the proposed levels of non-compliance in section 6042
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⊠ Yes □ No	⊠ Yes □ No	Comments	See comments #18.
⊠ Yes □ No	⊠ Yes □ No		
		21. Do vou	agree with the proposed requirements and measurements in section 606?
Comments Assuming that the requested transfer capability would be properly defined.	Comments Assuming that the requested transfer capability would be properly defined.		agree with the proposed requirements and measurements in section 606?
		🛛 Yes	agree with the proposed requirements and measurements in section 606?
		⊠ Yes □ No	

22. Do you agree with the proposed compliance monitoring process in section 606?
No No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
Yes
No
Comments Yes for 5.1, & 5.2.
5.3 What is ratings methodology has to do with transfer capability?
5.4 What are transfer capability ratings?
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments Under Compliance Monitoring Process - "Verified at any time as the result of a complaint" should be modified to include who can complaint? Therefore, suggest modification as "Upon complaint from the reliability authority, planning authority, or transmission operator, the compliance monitor will assess the responsible entity's performance under this requirement by information submittal, either on or off site."

25. Please enter any other comments you have regarding this standard in the space below.

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Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

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- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: WECC Technical	Group Representative: Pete	er Mackin	
Studies Subcommittee	Representative Phone: 916	-631-3212	
	Representative Email: pmackin@navigantconsulting.com		
List of Group Participants that Sup	port These Comments:		
Name	Company	Industry Segment	
Peter Mackin	Transmission Agency of Northern California	1	
Chifong Thomas	Pacific Gas and Electric Co.	1	
Esteban Martinez	Turlock Irrigation District	1	
Peter Krzykos	Arizona Public Service	1	
Joe Seabrook	Puget Sound Energy	1	
Phil Park	British Columbia Transmission Company	1	
C. V. Chung	Seattle City Light	9	

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\boxtimes	Yes
	No
Co	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
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	No
Со	mments

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	difference should be included in this standard?

X Yes

🗌 No

Comments

- 4. Are you aware of any other Regional differences that should be included in this standard?
- Yes

🛛 No

Comments For the WECC, the calculation of Transfer Capability should be mandatory only for those transfer paths for which the reliability authority determines that Transfer Capabilities are required for reliable operation of the system. Many entities only need to calculate System Operating Limits to establish reliable import / export limits for their respective systems. Unless the reliability authority determines that it is necessary, calculation of Transfer Capability would be an unnecessary burden with no commensurate benefit to reliable operation of the grid.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
 ☑ Yes ☐ No Comments We agree with the progression of the penalties as described in section 601. However, there should be monetary penalties assessed for methodology violations, and these penalties should be less than the penalties for violations for failure to communicate values. If an entity has no methodology, then the rating values they supply to the Reliability Authority could be in error. These bad rating values could result in operation such that a contingency on the system could cause the element with the bad rating to fail (on top of the contingency), which could result in the potential for loss of load (when not called for) or cascading outages.
 6. Do you agree with the proposed requirements and measurements in section 601? ☑ Yes ☑ No Comments
 7. Do you agree with the proposed compliance monitoring process in section 601? ☑ Yes ☑ No Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
☑ Yes ☐ No Comments Please see comments in 5 above.

9. Do you agree with the proposed requirements and measurements in section 602?
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
🖂 Yes
Comments Some clarification/explanation is needed. For example, why are ratings of new facilities (Level 2) more important than levels of existing facilities (Level 1)? Why is not
providing a rating for one new facility (Level 2) worse than not providing some existing ratings
(Level 1)? Why is one rating not developed consistent with the ratings methodology (Level 3) worse than no existing ratings being provided (Level 1)? There is no distinction between
missing between one rating and most of the ratings. This is a disincentive for people to improve
compliance.
 12. Do you agree with the proposed requirements and measurements in section 603?
\square Yes
Comments Footnote "d" in Table 1 does not appear to apply to Single Pole Block of a DC line.
Footnote "f" in Table 1A (in the column with the heading "Cascading Outages") probably should be replaced by footnote "c". Footnote "f" probably applies to contingencies listed in C.3.
603.1.2, "the methodology required in 603.1.1 shall state that the system operating limits shall
not violate the applicable facility rating", may be already covered in 603.1.3 (the disturbance performance table), and, therefore, this section could be redundant. If so, then we also will not
need 603.5.2, which references 603.1.2.

13. Do you agree with the proposed compliance monitoring process in section 603?	
🛛 Yes	
Comments	
14. Do you agree with the proposed levels of non-compliance in section 603?	
🖂 Yes	
Comments Please see comment in Question 12 ("Do you agree with the proposed	
requirements and measurements in section 603?")	
15. Do you agree with the proposed requirements and measurements in section 604?	
🛛 Yes	
Comments Please remove the word "function" from 604.2.3 or else change it to "functions"	
and add "functions" to the end of the sentence.	
16. Do you agree with the proposed compliance monitoring process in section 604?	
⊠ Yes	
Comments Please remove the word "ratings" from 604.4.1.	

17. Do	you agree with the proposed levels of non-compliance in section 604?
🖂 Yes	
🗌 No	
Comm	ents
	you agree with the proposed requirements and measurements in section 605?
No	
Comm	ents
19. Do	you agree with the proposed compliance monitoring process in section 605?
Comm	ents:
20. Do	you agree with the proposed levels of non-compliance in section 605?
🛛 Yes	s de la construcción de la constru
🗌 No	
informa	ents We agree with the philosophy of increasing penalty from not providing some ation, providing wrong information and not providing any information at all. However, so means that there is no distinction between missing between one limit and most of th

21. Do you agree with the proposed requirements and measurements in section 606?
Comments
22. Do you agree with the proposed compliance monitoring process in section 606?
⊠ Yes
Comments Please add the Transmission Service Provider to the list of functions in 606.4.2
and 606.4.3. Also, please change "which" to "that" in Section 606.4.1.
23. Do you agree with the proposed levels of non-compliance in section 606?
🖂 Yes
Comments We think we agree with the philosophy of increasing penalty from not providing
some information, providing wrong information and not providing any information at all.
However, this also means that there is no distinction between missing between one limit and
most of the limits. This is a disincentive for people to improve compliance.
24. What additional clarification, details, on madifications to this standard are recordered
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
Comments
Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments (1) The language used in the compliance document could be written in more "user-friendly" language.

(2) We would prefer to see several tables summarizing the "Compliance Monitoring Process". The tables should be in plain English stating clearly self certification, how long to hang on to the records, sample of documents to be saved, how long after announcement of audit would we expect to produce the records, how often to refresh the records (performance-reset period?), will each utility receive a reminder?, etc.

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System Operating Limits, and Transfer Capabilities' Standard

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Linda Campbell on behalf of the FRCC OC, EC and MIC

Organization FRCC

Industry Segment #

Telephone 813-289-5644

E-mail lcampbell@frcc.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System Operating Limits, and Transfer Capabilities' Standard

Name of Group: FRCC OC, EC and	Group Representative: Representative Phone:		
MIC members			
	Representative Email:		
List of Group Participants that Supp	oort These Comments:		
Name	Company	Industry Segment #	
LInda Campbell	FRCC	2	
Paul Elwing	Lakeland Electric	3	
John Shaffer	Florida Power & Light	1	
Don McInnis	Florida Power & Light	1	
Patti Metro	FRCC	2	
Joe Krupar	Florida Municipal Power Agency	3	
Richard Gilbert	Lakeland Electric	3	
Amy Long	Lakeland Electric	1	
Roger Westphal	Gainesville Regional Utilities	5	
Bob Remley	Clay Electric Cooperative	4	
Steve Wallace	Seminole Electric Cooperative	4	
Ted Hobson	JEA	1	

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🖂 Yes
🖂 No
Comments As stated in our comments on the draft "Operate within limits" standard, we are still confused about what the RA is. It seems like you can have it be different things in different circumstances. If the RA has the role of todays reliability coordinator, we would not agree that the RA has the ultimate responsibility to establish all SOLs. If the RA is what we call today a control area, we would agree that is where the ultimate responsibility lies. In our minds this question is still a critical area that NERC must address so that the industry understands how to review these.
We are also unsure why you asked this particular question since standard 604, Requirement 1.1 states that the RA, PA and TOp shall establish the SOLs for the areas they are responsible. Are we missing something??
 2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes No
Comments Identifying and communicating all SOLs is too broad of a requirement. "All" should only apply to bulk electric system facilities.
 3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard? Xes No
Comments We support regional differences, but they should not create problems in other regions.
4. Are you aware of any other Regional differences that should be included in this standard?
🗌 Yes
🖂 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values). **Yes** No No Comments Section 6, Sanctions should be removed completely from all of the standards. The compliance monitoring process and non-compliance levels are appropriate parts of the reliablility standard. However, the sanctions and penalties are part of the compliance program and are separate. The enforcement matrix should not be attached to this document, even for information only, as that gives the appearance of being part of the standard. The sanctions and penalties, along with the enforcement matrix are the responsibility of the new Compliance and Certification Committee (CCC). If the matrix is attached to the standard, every time the CCC changes it, the standard will need to be revised which is not something we should set ourselves up to do. 6. Do you agree with the proposed requirements and measurements in section 601? **Yes** No No Comments 1.2 is confusing. The reference to 601.1.1 should be removed. 1.1 requires a document. It looks like 1.2 is trying to say that the methodology should ensure that facility ratings shall not exceed the ratings of individual components. The current wording says it shall "state" that facility ratings.., but just to "state" it does not really mean anything. We would suggest to rewrite the 1.2 as follows - The methodolgy shall ensure that facility ratings shall not exceed the applicable ratings of the individual equipment that comprises the facility. 1.3 also seems to be unclear about the method or the documentation. It appears reading the requirement that it is really trying to state that the documentation needs to make sure and cover many listed. We would recommend that 1.3 be reworded to this - "The documentation shall identify..." rather than the methodology required in 601.1.1 Similar confusion exists in 2.1. We recommend that 2.1 be reworded to state- "The documentation shall be made available ... Also, in this statement remove compliance monitor. The compliance monitor notification should only be part of the compliance monitoring process. The important part of this measure is that the documentation is made available to those that need to review it such as the RA and PA. 2.2 also needs to be clarified. It currently states that the documentation shall contain all items listed in 1.2 and 1.3, but 1.3 is requiring identification of assumptions used for different equipment types. So, in 2.2 why would the measure require all items in 1.3? An observation we have made is that it appears that this new standard is replacing the existing NERC Planning standards IA, IE, IIB, and IIC. These planning standards were very specific and included much more detail. Requirement 1.1 mentions generators, but yet there is very little detail about what is required of them. Will this standard replace the 4 planning standards that we have mentioned?

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System	
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7. Do yo	ou agree with the proposed compliance monitoring process in section 601?
Commen number o that subm	is In 4.1 the entity is required to provide information, but it does not say within a f business days of a request. Should there be a time frame to comply? Also, it st ittal shall be either on or off site. Does the compliance monitor determine if it will l off site (via mail) or on site (on site visit)?
certification	peformance reset period is listed as 1 year. How does this relate to the self on requirement of every 3 years? We are not certain what the reset period really nen various parts of the compliance monitoring process have different time frames
9 D	
8. Do y	ou agree with the proposed levels of non-compliance in section 601?
·	ou agree with the proposed levels of non-compliance in section 601?
☐ Yes	ou agree with the proposed levels of non-compliance in section 601?
 ☐ Yes ☑ No Commen contain is 1.3 shoud listed in 1 	bu agree with the proposed levels of non-compliance in section 601? Its 5.1 has words about not containing 601.1.2 or addressing 601.1.3. We do not to appropriate based on our comments on requirement 1.2. It seems like both 1.2 at the addressed in the methodology. If a facility owner does not own one of the ty .3, does it mean they are non-compliant? 5.2 builds on 5.1 so if it is changed, 5.2 be revised as well and the same for 5.3 and 5.4.
☐ Yes ☑ No Commen contain is 1.3 shoud listed in 1 needs to	is 5.1 has words about not containing 601.1.2 or addressing 601.1.3. We do not t appropriate based on our comments on requirement 1.2. It seems like both 1.2 a I be addressed in the methodology. If a facility owner does not own one of the ty .3, does it mean they are non-compliant? 5.2 builds on 5.1 so if it is changed, 5.2
☐ Yes ☑ No Commen contain is 1.3 shoud listed in 1 needs to	is 5.1 has words about not containing 601.1.2 or addressing 601.1.3. We do not t appropriate based on our comments on requirement 1.2. It seems like both 1.2 a I be addressed in the methodology. If a facility owner does not own one of the ty .3, does it mean they are non-compliant? 5.2 builds on 5.1 so if it is changed, 5.2 be revised as well and the same for 5.3 and 5.4.
☐ Yes ⊠ No Commen contain is 1.3 shoud listed in 1 needs to 9. Do ye	is 5.1 has words about not containing 601.1.2 or addressing 601.1.3. We do not t appropriate based on our comments on requirement 1.2. It seems like both 1.2 a I be addressed in the methodology. If a facility owner does not own one of the ty .3, does it mean they are non-compliant? 5.2 builds on 5.1 so if it is changed, 5.2 be revised as well and the same for 5.3 and 5.4.

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System Operating Limits, and Transfer Capabilities' Standard

10. Do you agree with the proposed compliance monitoring process in section 602? Yes

🛛 No

Comments Same comment about on or off site that we stated in question 7. In 4.4 the performance reset period of 1 years appears to be ok with 4.2, but 4.1 is on a 3 year cycle. We are not sure we understand what this really means.

11. Do you agree with the proposed levels of non-compliance in section 602?	
 Yes No Comments 5.1 is based on getting ratings for existing facilities and 5.2 is for new or modified facilities. Why would non compliance for existing be less of a violation than for new? We are not sure we understand the reasoning here. 	
 12. Do you agree with the proposed requirements and measurements in section 603? Yes No 	
Comments See our comment on 1.2 in question 6, it is the same concept here. In 1.3, shouldn't the methodology ensure that system operating limits are established to aviod conditions outside table I rather than "require"? In reviewing the table, we note that footnote or is not the same footnote for normal clearing currently in Table I of the planning standards. Should it be the same? Also, the current Table 1 in planning standard IA contains Category D and Category D. What is the rationale for not including these two categories as well? For 1.4 we suggest rewording from "The methodology required in 603.1.1" to "The documentation shall". In 1.4.5 we suggest deleting the last part of the sentence "in the conditions listed in 603.1.4.1-1.4.4. We are not sure what it adds.	2
Confusion exists in 2.1. We recommend that 2.1 be reworded to state- "The documentation shall be made available" Also, in this statement remove compliance monitor. The compliance monitor notification should only be part of the compliance monitoring process. Th important part of this measure is that the documentation is made available to those that need to review it such as the RA and PA. In 2.2 we recommend deleting the words "required in 603.1.1" as it is really unnecessary.	ie

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System Operating Limits, and Transfer Capabilities' Standard

13. Do you agree with the proposed compliance monitoring process in section 603? Yes

No 🛛

Comments Same questions we stated earlier about "either on or off site". Also, same questions we stated earlier about the compliance reset period.

14. Do you agree with the proposed levels of non-compliance in section 603?

Yes

🛛 No

Comments 5.1 states that level one is if the methodology did not contain "the item" listed in 603.1.3. The item it refers to is the table (we think), so are not sure that this makes any sense. Did the SDT really mean to say level 1 would be if the methodology did not consider all of the conditions listed in the table? There needs to be some clarification here. 5.2 also seems to be that non-compliance would occur if the methodology did not ensure that SOLs did not violate the applicable facility ratings. The words "did not contain the item" here don't seem to make sense either. 5.3 looks like it is double hitting the areas already covered in 5.1 and 5.2. Is that appropriate? Also, in 5.3 it refers to any two items listed in 603.1.4 which is really a requirement of documentation, not methodology.

15. Do you agree with the proposed requirements and measurements in section 604?

Yes

🛛 No

Comments We are fine with the requirements however do have some comments on the measures. Measure 2.1 states "responsible entities". The standard language should be more specific on who this applies to. Also, 2.1 might be more clear if it was reworded to say "...shall develop their system operating limits consistent with their documented system operating limit methodology." and leave off the 603.1 words. The implication of measurement 2.2 is that the RA must have a document that lists and describes all SOLs on a time frame demanded by the individual TOPs. The reality is that the RA will in many cases rely on an on-line contingency analysis program that identifies the SOLs for the current operating condition. The infinite number of combinations of customer demand, generation dispatch, interchange schedules and equipment outages make it impossible to determine all SOLs ahead of time. The current wording makes the RA responsible for supplying what could be an unreasonable and impractical amount of SOL data. We would suggest the following wording for 2.2, "Reliability authorities and transmission operators shall provide system operating limits to transmission service providers and transmission operators on a schedule agreed to by the relaibility authority, transmission operator, and transmission service provider." This same concern is held for measure 2.3, i.e. the schedule should be agreed by the PA, TSP, TO and RA's. Also, in measure 2.2, the RA and TOp are providing the SOL to TSP and TO in their area. This does not agree with the functions listed in 1.2 We then notice that 2.3 separates out who the PA provides to. We are not sure we understand why this has been separated in this manner.

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System
Operating Limits, and Transfer Capabilities' Standard

16. Do you agree with the proposed compliance monitoring process in section 604? Yes
Comments Same comment as earlier about the "either on or off site" language. In 4.2 TSPs are not included and 2.2 shows the TSPs getting the SOLs from the RA. Need to be sure what it is. The performance reset period on 1 year seems to work with 4.2, but 4.1 is a 3 year cycle. See earlier comments.
17. Do you agree with the proposed levels of non-compliance in section 604?
17. Do you agree with the proposed levels of non-comphance in section 004.
Yes
🖂 No
Comments It looks like 5.2 and 5.4 are the same. What is the difference?
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments We have the same comment on 1.2 as in earlier in questions. In addition to that,
1.2 could be interpreted to exclude outage transfer distribution factor (OTDF) cutoffs which is an accepted practice for determination of transfer capabilities. The problem is that 605.1.2
refers to all applicable SOLs which ties back to 603.1.2 which states that SOLs shall not violate facility ratings. The accepted practice of excluding certain overload of facility rating with very low OTDFs should be explicitly acknowledged in Standard 605. Also 1.3 is a requirement that
documentation shall include, not the methodology. For measure 2.1 see our earlier comments about the wording documentation vs methodology and also the concern about
compliance monitor being in this measure.

19. Do you agree with the proposed compliance monitoring process in section 605?
Yes
No No
Comments Same question as earlier on "on or off site". Same question about reset period.
20. Do you agree with the proposed levels of non-compliance in section 605?
T Yes
 ⊠ No
—
Comments 5.1 seems to mix compliance to requirements of the methodology and what is required in documentation. It is confusing and needs clarification. 5.2, 5.3 and 5.4 are all very confusing. There needs to be a better way to identify the appropriate compliance levels and make sure we are not including things that are not as important as others.
 21. Do you agree with the proposed requirements and measurements in section 606?
No
Comments In 1.1,the inclusion of "NERC and its Regions" causes some concern. There needs to be reasoning or a need to know to supply transfer capability information to NERC and its Regions. This implies that all regions would get capability information from FRCC and we are not sure that is necessary. In 2.1 and 2.2 the terms "responsible entities" needs to be more specific.
22. Do you agree with the proposed compliance monitoring process in section 606?
Yes
No
Comments Same comment as earlier for "either on or off site". Same comment as earlier on the performance reset period.

Comment Form – 1st Posting of the draft 'Determine Facility Ratings, System **Operating Limits, and Transfer Capabilities' Standard**

23. Do you agree with the proposed levels of non-compliance in section 606? **Yes** No No Comments Until we understand why NERC and its Regions should be supplied with the transfer capability, we do not agree with 5.2. Also, we are not sure of the difference between 5.2 and 5.4. before it can be brought to ballot?

24. What additional clarification, details, or modifications to this standard are necessary

Comments In the comment box on this first page, the SDT has stated that the terms RA, PA etc really apply to the entities performing the functions identified in the functional model. We understand and appreciate why the team did this, however, there is still a lot of confusion about functions vs entities in the functional model. We would suggest that the standard include the extra words to make this distinction.

In the applicability paragraph, the SDT has referenced the functional model approved by the BOT in June 2001. This reference causes concern. We understand that including this reference and date identifies the version of the functional model so that the understanding of the functions are based on this particular document. But, what happens when the BOT approves a change to the model at a later date? Do we now have standards based on one set of functions or understanding of functions that are different than what is in the latest functional model? This will certainly cause confusion in the industry. But, on the other hand, if you remove the date reference, then anytime the BOT changes the model, they are effectively changing the standard without going through the SAR process. We do not want the BOT to be able to change who the standards apply to without going through due process either. How do we deal with this situation?

25. Please enter any other comments you have regarding this standard in the space below.

Comments We think the name of the standard along with the number should always be referenced on the web site, emails etc. It will be hard to remember just by the number.

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

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Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Monroe Landrum

Organization Southern Company

Industry Segment # 1

Telephone 205-257-6936

E-mail mjlandru@southernco.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
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- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group: Southern Company	Group Representative: Todd Lucas		
Transmission Planning	Representative Phone: 404-506-3564 Representative Email: telucas@southernco.com		
List of Group Participants that Supp	ort These Comments:		
Name	Company	Industry Segment #	
Todd Lucas	Southern Co	1	
Joe Payne	Mississippi Power Company	1	
Travis Koval	Southern Co	1	
Bill Pope	Gulf Power Company	1	
John Clark	Southern Co	1	
David Johnson	Savannah Electric	1	
Mike Miller	Southern Co	1	
Jim Griffith	Southern Co	1	
Gwen Frazier	Southern Co	1	
Monroe Landrum	Southern Co	1	

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🗌 Yes
🖂 No
Comments: It is not clear that the transmission operator will not have responsibility for establishing system operating limits. The phrase "for the areas for which they are responsible" appears several times. We assume this is a reference to the functional model responsibilities. We believe it would be helpful if these areas of responsibility were re-stated in this standard, making it clear what these areas are for each entity. We believe that there are certain system operating limits that the Transmission Operator will have the ultimate responsibility to establish.
 Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability? Yes
\square No
Comments
3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
No
Comments We do not currently know of any Regional differences at this time. However, during the initial phasing in of standards each region may find adopting or developing a different approach provides increased reliability. Therefore, we believe that differences should be considered as they are identified in the future.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
Comments: The approach should be allowed to continue unless and until it is demonstrated that philosophy is not effective.
6. Do you agree with the proposed requirements and measurements in section 601? Yes
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
🖂 Yes
Comments

 9. Do you agree with the proposed requirements and measurements in section 602? □ Yes □ No Comments
10. Do you agree with the proposed compliance monitoring process in section 602? ∑ Yes ☐ No Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
 ☑ Yes ☐ No Comments: In 602 5.2., the phrase upon request should be removed. The measures require that the information be provided on a schedule. Having "upon request" and "with their respective schedules" in the same sentence is ambiguous.

13. Do you agree with the proposed compliance monitoring process in section 603?
\boxtimes Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
No
Comments: The phrase "for the areas for which they are responsible" appears several times. We assume this is a reference to the functional model responsibilities. We believe it would be
helpful if these areas of responsibility were re-stated in this standard, making it clear what
these areas are for each entity.
16. Do you agree with the proposed compliance monitoring process in section 604?
Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments: In 604 5.2., the beginning of the sentence should read "All requested system operating limits were not provided to the transmission service provider" to be consistent with 602 5.1. The measures require that the information be provided on a schedule. Having "upon request" and "with their respective schedules" in the same sentence is ambiguous.
18. Do you agree with the proposed requirements and measurements in section 605?
☐ Yes ⊠ No
Comments: Transfer Capability Methodology should be jointly developed and documented with the transmission operator, with the Reliability Authority responsible for implementation.
19. Do you agree with the proposed compliance monitoring process in section 605?
⊠ Yes □ No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
⊠ Yes

	Do you agree with the proposed requirements and measurements in section 606?
	Yes
	No
trai	mments: We agree that the Reliability Authority and Planning Authority should establish the nsfer capabilities as long as the methodology was jointly developed with the transmission erator. (See comment to question 18.)
22.	Do you agree with the proposed compliance monitoring process in section 606?
	Yes
	No
Со	nments
23.	Do you agree with the proposed levels of non-compliance in section 606?
_	Yes
	No
Со	nments
24.	What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
	before it can be brought to banot:
Co	mmente: This standard should not be brought to ballot until the Planning Authority is

Comments: This standard should not be brought to ballot until the Planning Authority is defined in the Functional Model since the Planning Authority is assigned requirements in this standard.

25. Please enter any other comments you have regarding this standard in the space below.

Comments: The phrase "for the areas for which they are responsible" appears several times in this standard. We assume this is a reference to the responsibilities assigned in the functional model definitions. We believe it would be helpful if the areas of responsibility for each entity that are covered by this standard were re-stated within the standard.



Mr. Timothy R. Gallagher Director-Standards North American Electric Reliability Council 116-390 Village Boulevard Princeton, New Jersey 08540

Re: Comments by the Independent Electricity Market Operator (IMO) to Posted NERC Standards:

Dear Mr. Gallagher,

The Independent Electricity Market Operator (IMO) respectfully submits the following comments, to the following posted Standards.

- 1. NERC Standard 200, "Monitor and Assess Short Term Transmission Reliability-Operate Within Limits"
- 2. NERC Standard 300, "Balance Resources and Demand"
- 3. NERC Standard 600, "Determine Facility Ratings, System Operating Limits and Transfer Capabilities"

General comments to all standards posted to date:

The first concerns the repeated insertion of the monetary "Sanctions Table." Sanctions in whatever form have no direct relevance to the reliability standard being developed. They belong in a stand-alone document, endorsed by NERC and the Regions, that specifically address the enforcement process of the standards. Furthermore monetary sanctions have not been broadly endorsed, and this continues to be an outstanding issue with all posted standards to date. It is the IMO's opinion that these references must be removed

The second deals with the need for supporting documentation, such as provided for the Balancing Resources and Demand standard, that clearly articulates the "principles" and/or "objective" that each drafting team used in developing each specific standard and measure. This would greatly aid, particularly during the standard development stages, in understanding the "intent" of the DRAFT standard, which tends to be written in generic terms.

Other comments to specific language in the Standards follow:

<u>1. NERC Standard 200, "Monitor and Assess Short Term Transmission Reliability-Operate</u> <u>Within Limits"</u>

Definitions:

 T_v : The violation time associated with a limit.

This definition seems to reflect the compliance violation time frame, but the usage of the Tv term in the draft standard is the "maximum acceptable response time" as determined by the RA/PA.

BPS (Bulk Power System) - Definition for BPS is required.

Sections 201 IROL Identification, requirements and measures read as follows:

1. Requirements

- 1.1. The reliability authority and planning authority shall identify and document which facilities (or groups of facilities) in the reliability authority's reliability area are subject to interconnection reliability operating limits.
- 1.2. The reliability authority and planning authority shall identify each interconnection reliability operating limit within the reliability authority's reliability area.
 - 1.2.1. The reliability authority or planning authority shall identify a maximum response time (Tv) for any interconnection reliability operating limit that does not already have a Tv.

2. Measures

- 2.1. The entity responsible shall establish a list of interconnection reliability operating limits for the reliability authority's reliability area.
 - 2.1.1. The entity responsible shall establish a maximum response time (Tv) for any interconnection reliability operating limit that does not already have a Tv.
- 2.2. The entity responsible shall establish a list of facilities (or groups of facilities) in the reliability authority's reliability area that are subject to interconnection reliability operating limits

IMO believes that the present definition of Tv, which is "self-defined, as so broad that the re-preparation time of thirty minutes has been lost. It is unclear if this was indeed the intent based on Section 203 requirements 1.1 and 1.2 and measure 2.1.2.

In Section 201 (1.2.1):

- the reliability authority or planning authority identifying Tv must establish and present the process through which Tv is derived, or the re-preparation time of thirty minutes should become the standard default absent such a process.
- the reliability authority or planning authority identifying Tv in one region/area must have a peer review and dispute resolution process with its' neighboring region(s)/area(s) to ensure a mutually acceptable Tv. Additionally, Section 1.1 suggests the need for a demonstrated process to ".... identify and document which facilities (or groups of facilities) in the reliability authority's reliability area are subject to interconnection reliability operating limits." The mechanism to determine this critical element of the definition cannot be left open-ended. Without a recognized and accepted process, significant inconsistencies will result throughout the Interconnections.

A further concern with the draft is the continuing difficulty of defining wide area impact versus local impact. As the Standard defines "Cascading Outages":

Cascading Outages: The uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread service interruption, which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.

There is no guidance on how the parameters are to be defined which would permit the identification of the local area and the widespread area. It also fails to recognize that a local area problem may evolve into a wider area problem depending on the load, time of day, recent contingencies and other factors. A well defined process for determining what is (and what is not) a reportable event is essential.

Section 202 Monitoring read as follows

1. Requirements

1.1. The reliability authority shall monitor real-time system operating parameters to

1.2. Determine if it is operating its reliability area within its interconnection reliability operating limits.

2. Measures

2.1. The reliability authority shall have interconnection reliability operating limits available for its operations personnel's real-time use.

2.2. The reliability authority shall have real-time data available in a form that system operators can compare to the interconnection reliability operating limits.

2.3. The reliability authority shall monitor system operating parameters and compare these against its interconnection reliability operating limits.

The term "real-time" as used in the above lacks clarity in defining how well the RA monitors data (ie how often - every 2 sec; 10 seconds, etc). As an example a RA may sample data instantly (real time), but only monitor once every 30 minutes. It is IMO's view, such sampling frequency satisfies the above measures, however, its adequacy for maintaining system reliability must be questioned.

Section 203 Analysis and Assessment

1. Requirements

- **1.1.** The reliability authority shall perform operational planning analyses to verify that its planned bulk electric system operations will not exceed any of its interconnection reliability operating limits.
- **1.2.** The reliability authority shall perform real-time assessments to verify that it is not exceeding any interconnection reliability operating limits.

2. Measures

- **2.1.** The reliability authority shall identify operating situations or events that impact its ability to operate its reliability area without exceeding any identified interconnection reliability operating limits.
 - 2.1.1. The reliability authority shall conduct an operational planning analysis at least once each day, evaluating the next day's projected system operating conditions
 - 2.1.2. The reliability authority shall conduct a real-time assessment periodically, but at least once every 30 minutes.

The standard must provide a clear distinction between i) how often IROL's, are assessed, whether in real time or for operational planning analyses and ii) how quickly an IROL violation must be resolved. Requirement 1.2 "..... to verify that it is not exceeding any interconnection reliability operating limits" can be, in IMO's opinion, interrupted as to how quickly an IROL violation must be resolved...ie: each time it is detected in real-time, which shall be within 30 minutes or less in accordance with measure 2.1.2. This requirement belongs in section 201.

Section 204 Actions

1. Requirements

- **1.3.** The reliability authority shall act1 or direct others to act to:
- 1.3.1. Prevent instances where interconnection reliability operating limits may be exceeded
- **1.3.2.** 1.1.2. Mitigate the magnitude and duration of instances where interconnection reliability operating limits have been exceeded

1.4. The reliability authority shall document instances of exceeding interconnection reliability operating limits and shall document and complete an Interconnection Reliability Operating Limit Violation Report for instances of exceeding interconnection reliability operating limits for time 2 greater than or equal to Tv.

A further concern with the draft is the continuing difficulty of defining wide area impact versus local impact and the actions that are to be taken in such situations. As the Standard defines "Cascading Outages":

Cascading Outages: The uncontrolled successive loss of system elements triggered by an incident at any location. Cascading results in widespread service interruption, which cannot be restrained from sequentially spreading beyond an area predetermined by appropriate studies.

In Section 201there is no guidance on how the parameters are to be defined which would permit the identification of the local area and the widespread area. Further, fails to recognize that a local area problem or an "out of scope coverage" may evolve into a wider area problem depending on the load, time of day, recent contingencies and other factors. A well-defined process for determining what is (and what is not) a reportable event is essential. While, Section 204 fails to identify what actions are to be taken in such "out of scope coverage" situations.

2. NERC Standard 300, "Balance Resources and Demand"

The IMO fully supports the comments put forth by NPCC - entitled "NPCC Comments On The NERC Balancing Standard," which details numerous concerns with the methodology of the proposed new standard for frequency control.

3. NERC Standard 600, "Determine Facility Ratings, System Operating Limits and Transfer Capabilities"

Refer to the attached STD Comment form for "Determine Facility Ratings, System Operating Limits and Transfer Capabilities"

R. J. Falsetti

Ron Falsetti IMO Reliability Compliance Program Independent Electricity Market Operator (IMO) ⊠e-mail: <u>ron.falsetti@theIMO.com</u> *■ phone (905) 855-6187*

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Gary Won for:

Organization IMO

Industry Segment # 2

Telephone 905-855-6427

E-mail gary.won@theIMO.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho Representative Emai	one:				
List of Group Participants that Support These Comments:						
Name	Company	Industry Segment #				

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
\boxtimes	Yes
	No
Co	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\square	Yes
	No
Со	mments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🛛 Yes
🗌 No
Comments The NPCC criteria is more stringent than the NERC standard.
4. Are you aware of any other Regional differences that should be included in this standard?
Yes

Comments Possibly ERCOT and WSCC will have differences.

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
☐ Yes
No No
Comments Financial penalties should not be applied. This would open the gate to financial penalties for the many, much more severe violations addressed in other standards. The IMO feels that non-monetary sanctions are sufficient.
6. Do you agree with the proposed requirements and measurements in section 601?
⊠ Yes □ No
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
🛛 Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
── □ No
Comments See general comment below

9. Do you agree with the proposed requirements and measurements in section 602?
\boxtimes Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
Comments
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
☐ Yes
☐ Yes ⊠ No
 ☐ Yes ☑ No Comments The levels do not seem to follow any progression which would suggest increasing
 Yes No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all
 ☐ Yes ☑ No Comments The levels do not seem to follow any progression which would suggest increasing
 ☐ Yes ☑ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not.
 ☐ Yes ☑ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not. 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☑ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not. 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 ☐ Yes ☐ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not. 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☐ No
 ☐ Yes ☑ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not. 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 ☐ Yes ☐ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not. 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☐ No
 ☐ Yes ☐ No Comments The levels do not seem to follow any progression which would suggest increasing severity. Why is failure to have all ratings for existing facilities any different than not having all ratings for new facilities: level 1 as opposed to level 2? Either you have ratings or not. 12. Do you agree with the proposed requirements and measurements in section 603? ☐ Yes ☐ No

13. Do you agree with the proposed compliance monitoring process in section 603?
⊠ Yes
□ No
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
⊠ Yes
Comments See general comment below
15. Do you agree with the proposed requirements and measurements in section 604?
⊠ Yes
🗌 No
Comments
16. Do you agree with the proposed compliance monitoring process in section 604?
□ No
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
Comments See general comment below
18. Do you agree with the proposed requirements and measurements in section 605?
No No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🖂 Yes
□ No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
Yes
 ⊠ No
Comments The level 2 and 3 violations seem more severe than the violation addressed in level
4.
21. Do you agree with the proposed requirements and measurements in section 606? X Yes
Comments

	22. Do you agree with the proposed compliance monitoring process in section 606?
	⊠ Yes
	Comments
	Comments
	23. Do you agree with the proposed levels of non-compliance in section 606?
	🖂 Yes
	Comments See general comment below
	24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
	belore it can be brought to banot.
	Comments All the sanctions text should be removed, as they are dealt with elsewhere.
	25. Please enter any other comments you have regarding this standard in the space below.
Co	mments
	e proposed non-compliance levels for all these standards do not follow a natural progression. ey seem to be somewhat contrived and slotted into the 4 levels.
	1.4.2.2 - 10 years seems rather infrequent. Should provide opportunity for some verification en ratings change.
	1.4.3, 602.4.4, 6044.4, 606.4.4 - 3 years may not be long enough, given the typical timelines juired to resolve differences.
	3 Table I Note a) – reference is made to NERC Planning Standards – Will these still exist after new family of standards are in place.
603	3 Table IA
-	The NERC standard permits this table to be included here, but is it really necessary to have it here, other than for information purposes. At the NERC level, would it be sufficient to just note

- that NPCC has more stringent criteria and refer the reader to the NPCC standards.
- In the 2nd row, for "Cascading outages", superscript "f" should be "c". Under category C, for "Double Circuit Tower" (item #3) superscript "e" should be "f"
- Note "e" text requires reformatting to remove blank line.

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name William J. Smith

Organization Allegheny Power

Industry Segment # 1

Telephone 724-838-6552

E-mail wsmith1@alleghenypower.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:
List of Group Participants t	Representative Email: f Group Participants that Support These Comments:	
Name	Company	Industry Segment #

Background Information:

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The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
\boxtimes	Yes
	No
Со	mments
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\square	Yes
	No
Со	mments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
🗌 No
Comments
 Are you aware of any other Regional differences that should be included in this standard? Yes
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
🗌 No
Comments
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
🖂 Yes
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
🛛 🖾 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
⊠ Yes ☐ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No

13. Do you agree with the proposed compliance monitoring process in section 603?
⊠ Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
🛛 Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604? Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🛛 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
No No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
🛛 Yes
Comments
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?
Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments

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Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name

Organization

Industry Segment #

Telephone

E-mail

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Group Representative: Guy Zito Representative Phone: 212-840-1070 Representative Email: gzito@npcc.org				
			Support These Comments:	
			Company	Industry Segment
National Grid USA	1			
Hydro-Quebec TransEnergie	1			
New York Power Authority	1			
Nova Scotia Power Inc. Representing the Maritimes Area of Canada	1			
Hydro One Networks (Ontario)	1			
ISO-New England	2			
National Grid USA	1			
ISO-New England	2			
ISO-New England	2			
New York ISO	2			
	Representative Phone: 212 Representative Email: gzito@ Support These Comments: Company National Grid USA Hydro-Quebec TransEnergie New York Power Authority Nova Scotia Power Inc. Representing the Maritimes Area of Canada Hydro One Networks (Ontario) ISO-New England ISO-New England ISO-New England ISO-New England			

Background Information:

Notes to Industry Commenters:

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General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
🛛 Yes
] No
Comments
. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
☑ Yes
] No
Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
No No
Comments
This needs to be further discussed within NPCC's membership and will be decided at an upcoming NPCC Executive Committee meeting.
4. Are you aware of any other Regional differences that should be included in this standard?
Yes
🖂 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
Yes
No
Comments; NPCC is adamantly opposed to monetary sanctions and feels letters of increasing severity are a more effective compliance tool for ensuring adherence to standards.
6. Do you agree with the proposed requirements and measurements in section 601? ⊠ Yes
Comments NPCC suggests defining the term "applicable rating" as it appears in 601 Requirement, Section 1.2.
NPCC feels 15 business days is an insufficient time to submit data and requests it be changed to at least 20 business days.
7. Do you agree with the proposed compliance monitoring process in section 601?
\boxtimes Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
No

9. Do you agree with the proposed requirements and measurements in section 602?
Yes
□ No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
⊠ Yes □ No
⊠ Yes □ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 ☑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes ☐ No Comments Footnote d on Table 1 is incorrect. The footnote e on Table 1A is the correct

13. Do you agree with the proposed compliance monitoring process in section 603?
⊠ Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
🛛 Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604? Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🛛 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
X Yes
No No
Comments
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments ; Throughout Standard 600, in Sections 601.2.1, 601.5.4, 603.2.1, 603.5.4, 605.2.1 and 605.5.4, it is stipulated that documentation in response to the various requests contained therein must be made "••• within 15 business days of receipt •••." This time period seems to be arbitrarily chosen and is certainly unreasonably short and NPCC suggests a minimum of 20 business days.

NPCC is adamantly opposed to monetary sanctions and feels letters of increasing severity are a more effective compliance tool for ensuring adherence to standards.

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Ken Githens

Organization Allegheny Energy Supply

Industry Segment # 5

Telephone 412-858-1635

E-mail kgithen@alleghenyenergy.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

	on (For Groups Submitting Grou				
Name of Group:	Group Representative: Representative Phone: Representative Email:				
List of Group Participants that Support These Comments:					
Name	Company	Industry Segment #			

Background Information:

Notes to Industry Commenters:

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General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In

each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?
	Yes
\boxtimes	No
Co	mments Others such as generator or transmission owners would have input.
2.	Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
\boxtimes	Yes
	No
Со	mments However, refer to the comments under question 25.

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?
🖂 Yes
🗌 No
Comments
4. Are you aware of any other Regional differences that should be included in this standard?
Yes
🖂 No
Comments

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
⊠ Yes
□ No
Comments However, refer to the final comments under question 25.
6. Do you agree with the proposed requirements and measurements in section 601?
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
Yes
Comments
8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
Comments
Comments

9. Do you agree with the proposed requirements and measurements in section 602?
🛛 🖾 Yes
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
🖂 Yes
No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
⊠ Yes □ No
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
⊠ Yes ☐ No Comments
 ☑ Yes ☑ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No
 ∑ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ∑ Yes ☐ No

13. Do you agree with the proposed compliance monitoring process in section 603?
⊠ Yes
Comments
14. Do you agree with the proposed levels of non-compliance in section 603?
🖂 Yes
No No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
🛛 Yes
Comments
16. Do you agree with the proposed compliance monitoring process in section 604? Yes
Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes
Comments
18. Do you agree with the proposed requirements and measurements in section 605?
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
🛛 Yes
No No
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
🖂 Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
🖂 Yes
No No
Comments

22. Do you agree with the proposed compliance monitoring process in section 606?
🛛 Yes
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
🛛 Yes
No No
Comments
24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments RA data collection and communication is required under Std. 200 and 600 with financial sanction for noncompliance under both. An organization should not be hit with financial sanctions under both standards for not communicating the data. Only one standard should apply.

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SAR Commenter Information (For Individual Commenters)

Name Charles Yeung

Organization Reliant Energy

Industry Segment # 5

Telephone 713-497-2935

E-mail cyeung@reliant.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:				
	Representative Email:					
List of Group Participants that Support These Comments:						
Name	Company	Industry Segmen #				

Background Information:

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?

Yes

X No

Comments Unless there is accountability between what transmission tariff administrators are "selling" and what a transmission owner is allowing to be sold, the grid will not be optimized for market and reliability purposes. Since the NERC standard does not require a certain "footprint" for the RA, certain RAs that encompass only a single or a limited number of transmission owners will not have adequate information to properly assess simultaneous transfer capability. The goal of calculating a feasible simultaneous transfer limit should be a part of this standard and all RAs should be required to coordinate with their neighbors to set agreed upon Transfer Capability. Individualized, uncoordinated Transfer Capability values are detrimental to grid reliability and markets.

- 2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?
- Yes
- X No

Comments Communication of this data is necessary – but may be covered in another standard. Does the Coordinate Operations Standard require the communication of such data already?

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

Yes

X No

Comments Since the NPCC Regional Requirements mirror the overall NERC Standard but with the addition of Section C in Table IA, could the double contingency requirements contained in Section C Table IA be excluded from the NERC standard and instead be an addendum to NPCC members' requirements on a Regional basis? In other words, the Section A and B requirements appear to be common operating limit requirements for all NERC members. NERC must establish a consistent approach in how to handle Regional differences in these Organization Standards that are intended to be applicable to all NERC members, regardless of Regional Council affiliation.

Are you aware of any other Regional differences that should be included in this standard?

X No
Comments
4. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
☐ Yes
X No
Comments Lack of agreement and precision of transfer capabilities may have tremendous reliability implications. If this standard is to police transmission operators and RAs to calculate values that are to be employed for reliability, it must penalize those who do not provide realistic values. The only way to ensure all parties work together to develop good system limit values, is by having financial penalties for methodology violations. Penalizing only "failure to communicate" may already be covered under the Coordinate Operations Standard.
5. Do you agree with the proposed requirements and measurements in section 601?
Yes
X No
Comments Requirement 1.1.3 should require that a transmission owner or generator owner identify the lowest rated equipment installed within a facility if a particular piece of equipment (such as a carrier wave trap or a line switch) is the limiting element that is preventing a higher facility rating. NERC should be aware of such conditions to identify areas of the grid that can be upgraded with relative ease.

6. Do you agree with the proposed compliance monitoring process in section 601?Yes

X No

Comments There does not appear to be any obligation for facility owners to rerate their facilities in the event of equipment changes. NERC's information should be kept up to date and a compliance measure should be created to address this. Additionally, the Transfer Capability numbers are highly dependent upon the facility ratings and these numbers should be revised when the Facility Ratings are changed.

7. Do you agree with	the proposed levels of non-compliance in section 601?
☐ Yes	
🗌 No	
Comments	
8. Do you agree with	the proposed requirements and measurements in section 602?
Yes	
No No	
Comments	
	the proposed compliance monitoring process in section 602?
Yes	
No No	
Comments	

10. Do you agree with the proposed levels of non-compliance in section 602?
☐ Yes
🗌 No
Comments
11. Do you agree with the proposed requirements and measurements in section 603?
□ No
Comments
12. Do you agree with the proposed compliance monitoring process in section 603?
☐ Yes ☐ No
Comments
13. Do you agree with the proposed levels of non-compliance in section 603?
Yes
Comments
14. Do you agree with the proposed requirements and measurements in section 604?
—
Comments

	15. Do you agree with the proposed compliance monitoring process in section 604?
	Yes
	□ No
	Comments
	16. Do you agree with the proposed levels of non-compliance in section 604?
	Yes
	— Comments
	17. Do you agree with the proposed requirements and measurements in section 605?
	Yes
	No
(Comments
	18. Do you agree with the proposed compliance monitoring process in section 605?
	Yes
	🗌 No
	Comments

19. Do y	ou agree with the proposed levels of non-compliance in section 605?
🗌 Yes	
🗌 No	
Commer	nts
20. Do y	ou agree with the proposed requirements and measurements in section 606?
X No	
Commer	nts This section lacks a requirement to post the Transfer Capability values publicly in a prescribed by applicable tariffs and FERC Order 889 for jurisdictional entities.
21. Do y	you agree with the proposed compliance monitoring process in section 606?
Commer	nts
22. Do y	you agree with the proposed levels of non-compliance in section 606?
🗌 Yes	
🗌 No	
Commer	nts

23. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

24. Please enter any other comments you have regarding this standard in the space below.

August 3, 2003

Comments

Standard 600 - Facility Ratings, System Operating Limits, Transfer Capabilities

601

- 1. 1.1.3 Should there not be a reference to some document that describes a minimum level of acceptable "assumptions" that should be used? Then the 2.2 measure would have some yard-stick to measure against. As it is written, any assumptions could be interpreted to be acceptable.
- 2. 1 should be: "The Facility Ratings Methodology document shall be made available..." Your style is user friendly; however, "Facility Ratings Methodology" is not a defined term and therefore the reference to 601.1.1. (Bob)
- 4.2 Subsequent to the initial compliance review, compliance will be assessed at least every three years using on-site review method, review of information submitted as requested, or through self-certification, at the discretion of the compliance monitor. You are suggesting a different compliance monitoring method – each to his own – good for discussion. (Bob)

602

1. Add 4.1: The responsible entity shall demonstrate compliance to the compliance monitor within the first year that this standard becomes effective or the first year the entity commences operation by information submittal to the compliance monitor, either on or off site.

2. Re-number 4.1 through 4.4 to 4.2 through 4.5

603

- 1. Change 2.1. to: The System Operating Limits Methodology document shall be made available for inspection by the compliance monitor and the reliability authority and planning authority for the areas in which the facilities are located within 15 business days of receipt of a request. Comparable comment as 601 #3.
- 1. Change 4.2 to: Subsequent to the initial compliance review, compliance will be re-assessed at least every three years using on-site review method, review of information submitted as requested, or through self-certification, at the discretion of the compliance monitor.

<u>604</u>

1. Add 4.1: The responsible entity shall demonstrate compliance to the compliance monitor within the first year that this standard becomes effective or the first year the

entity commences operation by information submittal to the compliance monitor, either on or off site. Re-number 4.1 through 4.4 to 4.2 through 4.5

605 Comparable comments as 601 & 3.

- 2. Change 2.1. to: The Transfer Capability Methodology document shall be made available for inspection by the compliance monitor and the reliability authority and planning authority for the areas in which the facilities are located within 15 business days of receipt of a request.
- 3. Change 4.2 to: Subsequent to the initial compliance review, compliance will be re-assessed at least every three years using on-site review method, review of information submitted as requested, or through self-certification, at the discretion of the compliance monitor.

<u>606</u>

1. Add 4.1: The responsible entity shall demonstrate compliance to the compliance monitor within the first year that this standard becomes effective or the first year the entity commences operation by information submittal to the compliance monitor, either on or off site.

Re-number 4.1 through 4.4 to 4.2 through 4.5

<u>Note</u> – This form is to be used to comment on version 1 of the Determine Facility Ratings, System Operating Limits, and Transfer Capabilities Standard.

Comments will be accepted from July 1 – August 29, 2003.

Please review the draft standard and answer the questions in the yellow boxes. Send completed comment forms to sarcomm@nerc.com

If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Kathleen Goodman

Organization ISO New England Inc.

Industry Segment # 2

Telephone (413) 535-4111

E-mail kgoodman@iso-ne.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

SAR Commenter Information (For Groups Submitting Group Comments)		
Name of Group:	Group Representa Representative Ph Representative Ema	ione:
List of Group Participants t	hat Support These Comments	:
Name	Company	Industry Segment #

Background Information:

Notes to Industry Commenters:

The standard drafting team (SDT) considered the SAR for this proposed standard as well as the SAR comments previously supplied by the industry community while developing the standard. The SDT believes that it is helpful for the industry to understand the perspective of the SDT while reviewing this draft standard. The SDT also believes that it would be helpful to explain the linkages with other standards currently under development. The explanations below are offered to provide context and facilitate industry comments.

General Philosophy:

The SDT addressed the three components of this draft standard in three sets of pairs: Facility Ratings (601, 602), System Operating Limits (603, 604), and Transfer Capabilities (605,606). In each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

In the three 'methodologies' sections (601, 603, 605), the levels of noncompliance are based upon the availability and completeness of the documented procedures. In the three 'communication' sections (602, 603,605), the levels of noncompliance are based on the availability of the values <u>requested by the users</u> of the information and the consistency of these values with the documented methodologies.

Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

Relationship with "Operate Within Limits" Standard:

The SDT suggests that this draft standard be reviewed in concert with the "Operate Within Limits" draft standard. The Facility Ratings, System Operating Limits, and Transfer Capabilities draft standard requires the availability and usability of these data. The Operate Within Limits standard addresses the use of a subset of these values in real time operation. The SDT believes that the definitions developed in conjunction with this standard do not prohibit the stratification, or sub-classification, of the requested data (Facility Ratings, System Operating Limits, Transfer Capabilities) for specific uses or users. The intent and purpose of this standard, however, is to identify *all* system operating limits and not to differentiate them based upon the impacts of violating them.

1.	This standard assumes that the reliability authority has the ultimate responsibility to
	establish system operating limits and relies upon the transmission operator for input.
	Have the roles and responsibilities of transmission operators versus reliability
	authorities in determining system operating limits been properly characterized in this
	standard?

🛛 Yes

🗌 No

Comments

2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?

🛛 Yes

🗌 No

Comments

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

Yes

🛛 No

Comments

ISO-NE believes, if these Standards continue to include the Monetary Sanctions as they currently do, only less-stringent, by-exception, Regional differences should be included. Although ISO-NE supports NPCC's reliability standards, we cannot support including them in a NERC Standard, which has monetary sanctions associated with it, given our lack of support of such sanctions as an enforcement mechanism.

4. Are you aware of any other Regional differences that should be included in this standard?

Yes

🖂 No

5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to communicate values).
No
Comments: ISO-NE is adamantly opposed to monetary sanctions and believes letters of increasing severity are a more effective compliance tool for ensuring adherence to standards.
6. Do you agree with the proposed requirements and measurements in section 601?
No
Comments: ISO-NE suggests defining the term "applicable rating" as it appears in 601 Requirement, Section 1.2.
ISO-NE believes that 15 business days is an insufficient time to submit data and requests it be changed to at least 20 business days.
7. Do you agree with the proposed compliance monitoring process in section 601?
⊠ Yes □ No
Comments
 8. Do you agree with the proposed levels of non-compliance in section 601? ☑ Yes ☑ No

9. Do you agree with the proposed requirements and measurements in section 602?
⊠ Yes
□ No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602?
⊠ Yes
□ No
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
11. Do you agree with the proposed levels of non-compliance in section 602? Section Yes
• • • •
⊠ Yes
⊠ Yes □ No
⊠ Yes □ No
☐ Yes ☐ No Comments
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603?
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes
 ☐ Yes ☐ No Comments 12. Do you agree with the proposed requirements and measurements in section 603? ☑ Yes ☐ No Comments: Footnote d on Table 1 is incorrect. The footnote e on Table 1A is the correct

-	13. Do you agree with the proposed compliance monitoring process in section 603?
I	X Yes
	No
	—
(Comments
	14. Do you agree with the proposed levels of non-compliance in section 603?
	X Yes
[No No
	Comments
	15. Do you agree with the proposed requirements and measurements in section 604?
l	X Yes
[No
	Comments
-	16. Do you agree with the proposed compliance monitoring process in section 604?
I	X Yes
	No
	Comments

17. Do you agree with the proposed levels of non-compliance in section 604?
⊠ Yes □ No
Comments
Commenta
18. Do you agree with the proposed requirements and measurements in section 605?
\boxtimes Yes
No
Comments
19. Do you agree with the proposed compliance monitoring process in section 605?
⊠ Yes
Comments
20. Do you agree with the proposed levels of non-compliance in section 605?
Comments
21. Do you agree with the proposed requirements and measurements in section 606? ⊠ Yes
—
□ No
—
□ No

22. Do you agree with the proposed compliance monitoring process in section 606?
⊠ Yes
No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
Yes
□ No
Comments

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments

25. Please enter any other comments you have regarding this standard in the space below.

Comments: Throughout Standard 600, in Sections 601.2.1, 601.5.4, 603.2.1, 603.5.4, 605.2.1 and 605.5.4, it is stipulated that documentation in response to the various requests contained therein must be made "••• within 15 business days of receipt •••." This time period seems to be arbitrarily chosen and is certainly unreasonably short; ISO-NE suggests a minimum of 20 business days.

ISO-NE is adamantly opposed to monetary sanctions and believes letters of increasing severity are a more effective compliance tool for ensuring adherence to standards.

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If you have questions, please call Tim Gallagher at 609-452-8060 or send a question to timg@nerc.com

SAR Commenter Information (For Individual Commenters)

Name Robert W Waldele

Organization New York Independent System Operator, Inc

Industry Segment # 2

Telephone 518-356-6231

E-mail Rwaldele@nyiso.com

Key to Industry Segment #'s:

- 1 Trans. Owners
- 2 RTO's, ISO's, RRC's
- 3 LSE's
- 4 TDU's
- 5 Generators
- 6 Brokers, Aggregators, and Marketers
- 7 Large Electricity End Users
- 8 Small Electricity Users
- 9 Federal, State, and Provincial Regulatory or other Govt. Entities

Name of Group:	Group Representat Representative Pho	one:	
List of Group Participants t	Representative Email: at Support These Comments:		
Name	Company	Industry Segmen #	

Background Information:

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each of these pairs, the draft standard requires the development and availability of a "methodology" to determine the required quantities and secondly the application of this methodology in the establishment and communication of these values to the users of the values. These standards were developed assuming that the Facility Ratings, System Operating Limits and Transfer Capability values are to be provided to the user (e.g. those entities performing the reliability authority, planning authority, and transmission operator functions) on a schedule established by the *user*. The SDT endeavored to ensure that this draft standard would not require the determination of various values that had no identified user. For this reason, the user of the various values must request the specific values from the value provider (e.g. those entities performing the facility owner and planning authority functions) through the establishment of a schedule to supply the data.

Levels of Noncompliance:

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Sanctions:

The SDT believes that failure to comply with the three 'methodologies' sections (601, 603, 605) does not warrant monetary sanctions, since the methodologies themselves would not <u>directly</u> impact the reliable operation of the transmission system.

The unavailability of Facility Rating *values*, System Operating Limit *values* and to a lesser extent, Transfer Capability *values* will have a real and detrimental impact on the real time reliability of the transmission system as well as the validity of transmission plans for future transmission system additions. Therefore, the three 'communication' sections (602, 604, 606) include monetary sanctions for repeated and/or significant noncompliance as per the sanction table. The SDT believes that nominal, fixed dollar sanctions are appropriate in these cases. The application of 'per MW' variable sanctions would be inappropriate for these infractions compared to the consequences of violating the requirements of the standard. While the SDT realizes that a minor omission of a requested value could result in sanction, the SDT also believes that graduated sanctions based upon the level of 'completeness' of the data received by the users are impractical. The SDT is of the opinion that not all values have equal importance to the reliability of the transmission system, and therefore, sanctions based upon 'percentage of requested data received' (perhaps omitting values of specific critical limitations) would be arbitrary.

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1. This standard assumes that the reliability authority has the ultimate responsibility to establish system operating limits and relies upon the transmission operator for input. Have the roles and responsibilities of transmission operators versus reliability authorities in determining system operating limits been properly characterized in this standard?	
🖂 Yes	
🗌 No	
Comments	
2. Do you agree that identifying and communicating all system operating limits is within the scope of this standard and is necessary for reliability?	
⊠ Yes □ No	
Comments	

3. NERC Regions have the right to ask for Regional differences for inclusion in NERC standards. Such differences would apply only to the listed Region and would become an enforceable part of the NERC standard only if approved by the industry. NPCC has requested a Regional difference in section 603. Do you think NPCC's Regional difference should be included in this standard?

Yes

🛛 No

Comments: We had originally interpreted this "Regional Differences" issue as providing for a Region (or Area) to design/operate to a less stringent criteria/standard than the NERC requirement. The process would allow for adjacent Regions/Areas to be made aware of possible inter-Regional/Area adverse impact. The inclusion of the NPCC Criteria as a Regional Difference raises the concern that the NPCC standard is, in effect being balloted by the NERC stakeholders.

Please qualify the intent of the "Regional Differences" – does this mean that NPCC cannot enforce a stricter standard UNLESS it is specifically detailed in the NERC standard, and therefore, approved by the NERC stakeholders, and they have the final say in what/whether NPCC (or any other Region) can enforce a stricter standard? Does inclusion of the NPCC rule in the NERC standard then make the NPCC rule enforceable by NERC? The individual Regions should enforce their own (stricter) rules; where a Region is requesting waiver of a NERC rule (that is thought to be "too strict" on a "regional difference" basis) that should be documented and the appropriate approval sought.

Alternatively, is it appropriate that the "industry" approve a Regional difference? In the specific case, the referenced NPCC rules recognize the higher reliability standard that the NPCC Areas design and operate to in that part of the Interconnection.

4. Are you aware of any other Regional differences that should be included in this standard?

Yes

🖂 No
Comments
5. Do you agree with the sanction philosophy in this standard? (No financial penalties for methodology violations, nominal fixed monetary penalties for failure to
communicate values).
Comments: We disagree with the imposition of monetary sanctions as it has not been demonstrated to be an effective means of achieving compliance. Placing a financial penalty on
the communication seems to relegate the method (accuracy of data and analysis) to secondary
status.
6. Do you agree with the proposed requirements and measurements in section 601?
X Yes
Comments
7. Do you agree with the proposed compliance monitoring process in section 601?
Yes
Comments

8. Do you agree with the proposed levels of non-compliance in section 601?
⊠ Yes
── □ No
Comments
9. Do you agree with the proposed requirements and measurements in section 602?
⊠ Yes
□ No
Comments
10. Do you agree with the proposed compliance monitoring process in section 602? \vee Yes
⊠ Yes
Comments
Comments
11. Do you agree with the proposed levels of non-compliance in section 602?
⊠ Yes
Comments: We disagree with the imposition of monetary sanctions as it has not been demonstrated to be an effective means of achieving compliance.

12. Do you agree with the proposed requirements and measurements in section 603? Yes

🖂 No

Comments: Should clarify references to the "interruption of load" in f/n (b). Uncomfortable with the internalized definition of "cascading." F/n (d) is not referenced in the Table 1 – appears to be a hold over from the "old policy" (P2.A.1.1) stating "Multiple outages of credible nature...shall also be examined and Control Areas shall operate to protect against..." – this clearly suggests that the design and operating philosophy is being severely weakened.. The use of the term "single element" outage can easily be mis-interpreted to imply only single circuit, or one branch of a multiple element (i.e., 3-terminal facility) – this should more correctly be stated as "single contingency event of all elements within a single protection zone." We are also very concerned that the standard has removed any reference to the consideration of consideration for double-circuit tower, or breaker failure or SLG-delayed clearing contingencies.

13. Do you agree with the proposed compliance monitoring process in section 603?	
🖂 Yes	

🗌 No

14. Do you agree with the proposed levels of non-compliance in section 603?
🛛 Yes
🗌 No
Comments
15. Do you agree with the proposed requirements and measurements in section 604?
🖂 Yes
🗌 No
Comments

• •	ree with the proposed compliance monitoring process in section 604?
🛛 Yes	
🗌 No	
Comments	
17. Do you ag	ree with the proposed levels of non-compliance in section 604?
🛛 Yes	
🗌 No	
	/e disagree with the imposition of monetary sanctions as it has not been
demonstrated	to be an effective means of achieving compliance.
18. Do you ag	gree with the proposed requirements and measurements in section 605?
No	
	ot clear what the intent of 605.1.2: "transfer capabilities shall adhere to all tem operating limits." How can this be measured?
applicable sys	tem operating innits. How can this be measured?
10 D	
I9. Do you ag ⊠ Yes	gree with the proposed compliance monitoring process in section 605?
—	
No No	
Comments	

20. Do you agree with the proposed levels of non-compliance in section 605?
⊠ Yes
Comments
21. Do you agree with the proposed requirements and measurements in section 606?
☐ Yes ⊠ No
Comments: Is there a limit to the amount of information that "NERC and its Regions" would be requesting in the context of "transfer capabilities?" or does this apply to the reporting of inter-Regional transfer capabilities only? Need a better definition of "transfer capability" is it related to ATC/TTC or TSC?
22. Do you agree with the proposed compliance manitoring process in section (062
22. Do you agree with the proposed compliance monitoring process in section 606?
\square No
Comments
23. Do you agree with the proposed levels of non-compliance in section 606?
No No
Comments: Assumes that the extent of the reporting requirement applies to inter-Regional transfer capabilities. We disagree with the imposition of monetary sanctions as it has not been demonstrated to be an effective means of achieving compliance.

24. What additional clarification, details, or modifications to this standard are necessary before it can be brought to ballot?

Comments: Has the drafting team considered the volume of support documentation that is being requested in the initial compliance effort? This reporting requirement may place a significant burden on the RA, etc., and the compliance monitor. Need enhanced definitions of transfer capability and clarification of the regional differences application.

25. Please enter any other comments you have regarding this standard in the space below.

Comments: In addition to the response to #24 above, we are genuinely concerned that this document clearly represents a weakening of the overall design and operating philosophy for interconnected system operation and (now more clearly after August 14) NOT the direction that NERC or the industry should be taking.