

Facility Ratings Standard Drafting Team Conference Call Meeting

June 15, 2007 — 11 a.m. – 1p.m. (EDT)

Meeting Notes

1. Introductions

Paul Johnson, Active Chair, welcomed everyone. The following members of the SDT participated in the call:

- Paul Johnson, Chair
- Bob Birch
- Keith Calhoun
- Alfred B. Corbett
- Terry Crawley
- Robert Kluge
- Robert (Bob) Millard
- Steven Myers
- Philip D. Riley
- Tapani O. Seppa
- Vladimir Stanisic
- Ronald Szymczak
- Michael Viles
- Maureen Long (non-voting coordinator)

2. Review of new NERC Antitrust Compliance Guidelines – Maureen Long reminded everyone of the NERC Antitrust Compliance Guidelines.

3. Modifications to FAC-008 for Conformance to FERC Order 693

- a. Paul Johnson led the team in a discussion of proposed changes to FAC-008 to address the directives in FERC Order 693. The standard, as revised in the meeting, is included as **Attachment 1**.
- b. Additional information is needed from compliance personnel before the standard can be posted. There is a contradiction in the data retention requirements, and there is a need to add a VSL for the requirement added to comply with one of the FERC directives. The team is asking compliance personnel for further justification on the reason for lengthening the data retention period – and suggested a shorten length of time would be more reasonable.
- c. The team discussed whether there is a need to add a footnote or other clarifying information regarding the use of dynamic ratings – and the consensus of the team was that neither a footnote nor an additional requirement is needed. In requirement 2, one of the elements that must be addressed in the facility rating methodology was modified - ‘ambient conditions’ was modified to ‘ambient conditions (average or as they vary in real-time).’

4. Consideration of Comments on Last Posting of SAR and Standard

- a. The team verified that the draft responses to the AEP comments were acceptable, however it was noted that all responses to the question regarding applicability of the Generator Owner would need to be modified to reflect the change made to now require all Generator Owners to comply with the requirements in the standard. Maureen agreed to make one more pass through the document to see if any other responses need modification based on the changes made to the standard during the conference call. The

consideration of comments, edited according to the team's recommendations, is included as **Attachment 2**.

5. Comment Form for Next Posting

- a. The team reviewed the draft comment form and determined that an additional question needed to be added to address the FERC comment in Order 693 relative to dynamic ratings.
- b. The team asked that compliance personnel determine whether it is appropriate to seek industry feedback on the following FirstEnergy comment submitted to FERC and included in Order 693. The drafting team felt that compliance with NRC ratings methodology should not be assumed to comply with FAC-008 as the methodologies are intended to achieve different objectives.

FirstEnergy proposes that compliance with NRC ratings methodology requirements should be assumed to comply with this Reliability Standard.

The Comment Form, with the new question and with the FirstEnergy question omitted is included as **Attachment 3**.

6. Schedule next meeting to occur following the 30-day posting of the revised standard

- a. The team did not schedule its next meeting, but determined to resolve any outstanding issues by noon on Friday, June 22 with a goal of posting the standard for a 30-day comment period starting on Monday, June 25.

7. Meeting adjourned around 1:15 EDT

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. SAC approved SAR and standard for posting (January 11, 2007).
2. Posted for initial comment period from January 15 – February 28, 2007.

Proposed Action Plan and Description of Current Draft:

This is the second draft of the proposed standard, posted for a 30-day comment period, along with the associated implementation plan from June 25 – July 24, 2007.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post response to comments.	August 9, 2007
2. Post for 30-day pre-ballot review	August 14 – September 12, 2007
3. Conduct initial ballot	September 13 – 24, 2007
4. Respond to comments with initial ballot	September 28, 2007
5. Conduct recirculation ballot	October 1–10, 2007
6. Post for BOT 30-day preview	September 21, 2007
7. BOT adoption	October 22, 2007

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

None.

A. Introduction

1. **Title:** Facility Ratings
2. **Number:** FAC-008-2
3. **Purpose:** To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.
4. **Applicability**
 - 4.1. Transmission Owner.
 - 4.2. Generator Owner.
5. **Proposed Effective Date:** The first day of the first calendar quarter that is twelve months beyond the date approved by applicable regulatory authorities.

B. Requirements

- R1. The Generator Owner shall have a documented methodology for determining the Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned generating unit Facilities that identifies the following were considered: [*Violation Risk Factor: Lower*] [*Time Horizon: Long-term Planning*]
 - R1.1. Facility commissioning data.
 - R1.2. Performance history or testing accompanied by engineering analysis.
 - R1.3. Ratings provided by equipment manufacturers.
 - R1.4. Ambient conditions.
 - R1.5. Equipment Rating standard(s) used in development of this methodology.
- R2. The Transmission Owner and Generator Owner shall each have a documented methodology for determining Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned Facilities (except for those generating Facilities addressed in R1) that contains all of the following: [*Violation Risk Factor: Lower*] [*Time Horizon: Long-term Planning*]
 - R2.1. The methodology used to establish the Ratings of the Equipment that comprises the Facility shall be consistent with one or more industry Equipment Rating standards or guidelines.¹
 - R2.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in R2.1 including identification of how the following were considered:
 - R2.2.1. Equipment Rating standard(s) used in development of this methodology.
 - R2.2.2. Ratings provided by equipment manufacturers.
 - R2.2.3. Ambient conditions (average or as they vary in real-time).
 - R2.2.4. Operating limitations.²

¹ The industry Equipment Rating standard or practice used must be either a nameplate rating; IEEE Standards or Guides; or a recognized, published industry-accepted practice such as a CIGRE guideline, or other similar documents.

² Including temporary de-ratings of impaired equipment in accordance with good utility practice.

- R2.3.** A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
- R2.4.** The method by which the Rating (of equipment that comprises a Facility) is determined.
- R2.4.1.** The scope of equipment addressed shall include, but not be limited to, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
- R2.4.2.** The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.
- R3.** The Transmission Owner and Generator Owner shall each make its Facility Ratings Methodology available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners and Planning Coordinators that have responsibility for the area in which the associated Facilities are located, within 21 calendar days of receipt of a request. [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]
- R4.** If a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator provides written comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Generator Owner shall provide a response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings Methodology and, if no change will be made to that Facility Ratings Methodology, the reason why. [*Violation Risk Factor: Lower*] [*Mitigation Time Horizon: Operations Planning*]
- R5.** The Transmission Owner and Generator Owner shall each have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings Methodology. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- R6.** The Transmission Owner and Generator Owner shall each provide Facility Ratings for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- R7.** If a Transmission Owner receives a request (from an associated Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator) for identification of the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility Rating, the Transmission Owner shall provide the requested information within 30 calendar days,(or a later date if specified by the requester) if the Facility Rating meets all of the following criteria: [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning, Same-day Operations, Real-time Operations*]
- R7.1.** It is a thermal rating.
- R7.2.** It is not limited by a conductor rating.
- R7.3.** It can be classified as one of the following:
- An Interconnection Reliability Operating Limit
 - A limitation of Total Transfer Capability

- An impediment to generation deliverability
- An impediment to service to major cities or load pockets

C. Measures

- M1.** The Generator Owner shall have a documented Facility Ratings Methodology that considers all of the items identified in Requirement 1.1 through Requirement 1.5.
- M2.** The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items identified in Requirement 2.1 through Requirement 2.4.
- M3.** The Transmission Owner and Generator Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it made its Facility Ratings Methodology available for inspection within 21 calendar days of a request in accordance with Requirement 3.
- M4.** If the Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator provides documented comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings Methodology, the Transmission Owner or Generator Owner shall have evidence, (such as a copy of a dated electronic note or other comparable evidence from the Transmission Owner or Generator Owner addressed to the commenter that includes the response to the comment,), that it provided a response to that commenting entity in accordance with Requirement 4.
- M5.** The Transmission Owner and Generator Owner shall have evidence to show or shall be able to demonstrate that its Facility Ratings are consistent with its Facility Ratings Methodology (Requirement 5).
- M6.** The Transmission Owner's and Generator Owner's set of Facility Ratings shall include ratings for its solely and jointly owned Facilities including new Facilities, existing Facilities, modifications to existing Facilities and re-ratings of existing Facilities. (Requirement 5)
- M6.** The Transmission Owner and Generator Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided its Facility Ratings to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 6.
- M7.** The Transmission Owner shall each have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided requested information (identification of the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility's Rating) to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with Requirement 7.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Entity

1.2. Compliance Monitoring Period and Reset Timeframe

One or more of the following methods will be used to assess compliance:

- Self-certification (conducted annually with submission according to schedule).

- Spot check audits (conducted anytime with up to 30 days notice given to prepare).
- Periodic audit (conducted one or more times every three years according to schedule).
- Investigations.
- Other methods as provided for in the Compliance Monitoring Enforcement Program.

The Performance-Reset Period shall be 12 months from the last finding of noncompliance.

1.3. Data Retention

The Transmission Owner and Generator Owner shall each keep all superseded portions of its Facility Ratings Methodology for the previous five years plus current beyond the date of the change in that methodology and shall keep all documented comments on the Facility Ratings Methodology and associated responses for the previous five years plus current. In addition, entities found non-compliant shall keep information related to the non-compliance until found compliant.

The Compliance Monitor shall keep the last audit and all subsequent compliance records.

1.4. Additional Compliance Information

The Transmission Owner and Generator Owner shall each make the following available for inspection during an on-site audit by the Compliance Monitor or within 15 business days of a request as part of an investigation upon complaint:

1.4.1 Facility Ratings Methodology

1.4.2 Industry Equipment Rating standards or practice(s) used for developing Equipment Ratings

1.4.3 Superseded portions of its Facility Ratings Methodology that had been replaced, changed or revised within the past 12 months

1.4.3.1 The compliance monitor may, at its determination, request some or all the previous three years of the superseded portions of the entities Facility Ratings Methodology that had been replaced, changed or revised as part of an audit or investigation.

1.4.4 Documented comments provided by a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings methodology, and the associated responses

1.4.5 Facility Ratings

1.4.6 Evidence that Facility Ratings were distributed

1.4.7 Distribution schedules provided by entities that requested Facility Ratings

2. Violation Severity Levels

2.1. Lower: There shall be a lower violation if one or more of the following conditions exists:

2.1.1 The Facility Ratings Methodology does not contain a statement that a Facility Rating shall equal the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.

- 2.1.2 The Facility Ratings Methodology does not address one of the required equipment types identified in FAC-008 R2.4.1.
- 2.1.3 No evidence of responses to a Reliability Coordinator's, Transmission Operator, Transmission Planner, or Planning Coordinator's comments on the Facility Ratings Methodology.
- 2.1.4 Not all requested Facility Ratings associated with existing Facilities were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.
- 2.1.5 The Facility Ratings Methodology was not made available for inspection within 22 business days of receipt of a request, but was provided within 28 calendar days of receipt.
- 2.1.6
- 2.2. **Moderate:** There shall be a moderate violation if one or both of the following conditions exists:
 - 2.2.1 The Facility Ratings Methodology is missing the assumptions used to determine Facility Ratings or does not address two of the required equipment types identified in FAC-008 R2.4.1.
 - 2.2.2 Not all Facility Ratings associated with new Facilities, modifications to existing Facilities, and re-ratings of existing Facilities were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.
 - 2.2.3 The Facility Ratings Methodology was not made available for inspection within 29 business days of receipt of a request, but was provided within 42 calendar days of receipt.
- 2.3. **High:** There shall be a high violation if one or both of the following conditions exists:
 - 2.3.1 The Facility Ratings Methodology does not address three or more of the required equipment types identified in FAC-008 R2.4.1.
 - 2.3.2 Facility Ratings provided were not developed consistent with the Facility Ratings Methodology.
 - 2.3.3 The Facility Ratings Methodology was not made available for inspection within 42 business days of receipt of a request, but was provided within 56 calendar days of receipt.
- 2.4. **Severe:** There shall be a severe violation if one or both of the following conditions exists:
 - 2.4.1 The Facility Ratings Methodology does not address both Normal and Emergency Ratings or the Facility Ratings Methodology was not made available for inspection within 15 business days of receipt of a request.
 - 2.4.2 No Facility Ratings were provided to the Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), or Transmission Operator(s) in accordance with their respective schedules.
 - 2.4.3 The Facility Ratings Methodology was not made available for inspection within 57 calendar days of receipt of a request, or was not provided for inspection at all.

E. Regional Variances

None Identified

F. Associated Documents

None Identified

Version History

Version	Date	Action	Change Tracking
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Consideration of Comments on 1st Posting of Facility Ratings SAR and Standard

The Facility Ratings SAR and standard requesters thank all commenters who submitted comments on Draft 1 of the Facility Ratings SAR and standard. The SAR and standard were posted for a 45-day public comment period from January 15 through February 28, 2007. The requesters asked stakeholders to provide feedback on the standard through a special standard Comment Form. There were 33 sets of comments, including comments from more than 98 different people from more than 72 companies representing 8 of the 10 Industry Segments as shown in the table on the following pages.

Based on stakeholder comments, the drafting team made the following modifications to the standard:

- Modified the Applicability section to make the standard applicable to all Generator Owners.
- Subdivided the requirement to have a methodology so that the criteria for the Generator Owner's Facility Rating methodology for generating unit Facilities is separated from the criteria for methodology for all other Facilities. The criteria for the generating unit Facility Rating methodology was modified to eliminate the need to identify an industry Equipment Rating standard for the rating of each component that makes up the facility. The revised requirement should result in a methodology that produces better data without requiring the investment of additional resources just to document the methodology. The revised requirement for the Generator Owner states:
 - R1.** The Generator Owner shall have a documented methodology for determining the Facility Ratings (Facility Ratings Methodology) of its solely and jointly owned generating unit Facilities that identifies how the following were considered: [*Violation Risk Factor: Lower*] [*Time Horizon: Long-term Planning*]
 - R1.1.** Facility commissioning data
 - R1.2.** Performance history or testing accompanied by engineering analysis
 - R1.3.** Ratings provided by equipment manufacturers
 - R1.4.** Ambient conditions
 - R1.5.** Equipment Rating standard(s) used in the development of this methodology
- The Violation Risk Factor for the requirement to have documentation was changed from 'Medium' to 'Lower' to reflect that having this documentation is administrative.
- The Time Horizons for the requirements to have and communicate Facility Ratings were expanded to include additional Time Horizons to reflect that Facility Ratings may be developed and communicated in 'Real-time', 'Same-day' or the 'Operations Planning' Time Horizons.
- (Placeholder for changes made by compliance personnel)

The drafting team made other minor changes to improve the clarity of the standard.

Following the posting of this standard, FERC issued Order 693, and the drafting team made the following addition to the standard to address one of the directives in that order:

- R7.** If a Transmission Owner receives a request (from an associated Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator) for identification of

Consideration of Comments on 1st Posting of Facility Ratings SAR and Standard

the most limiting Equipment that comprises a Facility and the hypothetical increase in the Facility's Rating if that most limiting Equipment that comprises that Facility were not considered in the development of that Facility Rating, the Transmission Owner shall provide the requested information within 30 calendar days,(or a later date if specified by the requester) if the Facility Rating meets all of the following criteria: [Violation Risk Factor: Lower] [Time Horizon: Operations Planning, Same-day Operations, Real-time Operations]

- R7.1. It is a thermal rating.
- R7.2. It is not limited by a conductor rating.
- R7.3. It can be classified as one of the following:
 - An Interconnection Reliability Operating Limit
 - A limitation of Total Transfer Capability
 - An impediment to generation deliverability
 - An impediment to service to major cities or load pockets

Because the changes to the standard are significant, the drafting team will post the standard for another comment period.

In this "Consideration of Comments" document stakeholder comments have been organized so that it is easier to see the responses associated with each question. All comments received on the standards can be viewed in their original format at:

http://www.nerc.com/~filez/standards/Facility_Ratings_Project_2006-09.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.¹

¹ The appeals process is in the Reliability Standards Development Procedures: <http://www.nerc.com/standards/newstandardsprocess.html>.

Consideration of Comments on 1st Posting of Facility Ratings SAR and Standard

Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
1.	Henry Miller (G1)	AEP												
2.	James Sorrels	AEP	✓											
3.	Anita Lee (G4) (I)	AESO		✓										
4.	Darrell Pace (G2)	Alabama Electric Cooperative	✓											
5.	Bob McGarrah (G2)	Ameren	✓											
6.	John E. Sullivan (I) (G2)	Ameren	✓											
7.	Jason Shaver	American Transmission Co.	✓											
8.	E. Nick Henery	APPA	✓											
9.	Richard Young (G1)	ATC												
10.	Olutayo Oyelade	Baltimore Gas & Electric Co	✓											
11.	Brian Bartos	Bandera Electric Coop., Inc.												
12.	Berhanu Tesema	BPA	✓											
13.	Mike Viles	BPA	✓											
14.	Brent Kingsford (G4)	CAISO		✓										
15.	Alan Gale	City of Tallahassee					✓							
16.	Greg Tillitson (G7)	CMRC												
17.	Charles Rogers (G1)	Consumers Energy												
18.	Les Barrow	CPS Energy			✓									
19.	Brian Moss (G2)	Duke Energy Carolinas	✓											
20.	Greg Mason	Dynegy					✓							
21.	Charles Long (G2)	Entergy	✓											
22.	Ed Davis	Entergy Services, Inc.	✓											
23.	Steve Myers (G4) (I)	ERCOT												✓
24.	Richard Maxwell (G1)	FirstEnergy												
25.	John Mulhausen	Florida Power & Light Company	✓											
26.	John Shaffer	Florida Power &	✓											

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Commenter		Organization	Industry Segment												
			1	2	3	4	5	6	7	8	9	10			
		Light Company													
27.	W.R. Schoneck	Florida Power & Light Company	✓												
28.	Eric Senkowicz	Florida Reliability Coordinating Council													✓
29.	John Odom	Florida Reliability Coordinating Council													✓
30.	L. Earl Fair	Gainesville Regional Utilities	✓												
31.	Phil Winston (G1)	Georgia Power													
32.	Roger Champagne (G5) (I)	HQTE	✓												
33.	Bruno Jesus (G5)	Hydro One	✓												
34.	David Kiguel	Hydro One Networks, Inc.	✓												
35.	Dave Angell (G1)	Idaho Power													
36.	Ron Falsetti (G4) (I)	IESO		✓											
37.	Bill Shemley (G5)	ISO-NE		✓											
38.	Kathleen Goodman (G5) (I)	ISO-NE		✓											
39.	Matt Goldberg (G4)	ISO-NE		✓											
40.	Brian Thumm	ITC Transmission	✓												
41.	Jim Cyrulewski	JDRJC Associates										✓			
42.	Michael Gammon	Kansas City Power & Light	✓												
43.	Don Nelson (G5)	MA Dept. T&E												✓	
44.	David Weekley (G2)	MEAG Power	✓												
45.	Jason Marshall	Midwest ISO Stakeholders Standards Collaboration Participants		✓											
46.	Bill Phillips (G4)	MISO		✓											
47.	Phil Tatro (G1)	National Grid													
48.	Randy McDonald (G5)	NBSO		✓											
49.	Michael Calimano	New York ISO		✓											

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
50.	Murale Gopinathan (G5)	Northeast Utilities	✓											
51.	Greg Campoli (G5)	NPCC												✓
52.	Guy V. Zito (G5)	NPCC												✓
53.	Jerad Barnhart (G5)	NStar	✓											
54.	Jim Ingleson (G1)	NYISO												
55.	Mike Calimano (G4)	NYISO		✓										
56.	Ralph Rufrano (G5)	NYPA	✓											
57.	Al Adamson (B5)	NYSRC												✓
58.	Chigong Thomas (G6)	Pacific Gas & Electric Company	✓											
59.	Paulette Powell	Pepco Holdings Inc., Affiliates	✓											
60.	Richard Kafka	Pepco Holdings Inc., Affiliates	✓											
61.	William Ruggeri	Pepco Holdings Inc., Affiliates	✓											
62.	Alicia Daughtery (G4)	PJM		✓										
63.	Joe Burdis (G1)	PJM Interconnection												
64.	Jack Bernhardsen (G7)	PNSC												
65.	Bryan Guy	Progress Energy Carolinas	✓		✓		✓							
66.	Erika Hess	Progress Energy Carolinas	✓		✓		✓							
67.	Bob Johnson (G7)	PSC												
68.	C. Robert Moseley	PSC of South Carolina											✓	
69.	David A. Wright	PSC of South Carolina											✓	
70.	Elizabeth B. Fleming	PSC of South Carolina											✓	
71.	G. O'Neal Hamilton	PSC of South Carolina											✓	
72.	John E. Howard	PSC of South Carolina											✓	
73.	Mignon L. Clyburn	PSC of South Carolina											✓	

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
74.	Phil Riley	PSC of South Carolina											✓	
75.	Randy Mitchell	PSC of South Carolina											✓	
76.	Joe Seabrook (G6)	Puget Sound Energy	✓											
77.	Frank McElvain (G7)	RDRC												
78.	Dilip Mahendra (G6)	Sacramento Municipal Utility District	✓											
79.	Mike Gentry	Salt River Project	✓											✓
80.	Phil Kleckley (G2)	SC Electric and Gas			✓									
81.	Pat Huntley (G2)	SERC Reliability Corp												✓
82.	Roger Green (G3)	SoCo Generation						✓						
83.	Terry Crawley (G3)	SoCo Generation						✓						
84.	Tom Higgins (G3)	SoCo Generation						✓						
85.	Dana Cabbell (G6)	Southern California Edison Company	✓											
86.	Bob Jones (G2)	Southern Company Services	✓											
87.	J. T. Wood (G3)	Southern Company Services	✓											
88.	Marc Butts (G3)	Southern Company Services	✓											
89.	Roman Carter (G3)	Southern Company Services	✓											
90.	Charles Yeung (G4)	SPP												✓
91.	Travis Sykes (G2)	TVA	✓											
92.	W Mark Carpenter (G1)	TXU Electric Delivery												
93.	Herb Schrayshuen (G5)	US National Grid	✓											
94.	Peter Mackin (G6)	Utility System Inefficiencies, Inc.										✓		
95.	Nancy Bellows (G7)	WACM												
96.	Howard Rulf	We Energies			✓	✓	✓							
97.	Miriam Mirzadeh (G6)	Western Area Power Administration	✓											
98.	Tom Wiedman (G1)	Wiedman Power												

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Commenter		Organization	Industry Segment											
			1	2	3	4	5	6	7	8	9	10		
		System Consulting												
99.	David Kral	Xcel Energy Services Inc					✓							

- G1 – NERC Relay Loadability SDT
- G2 - SERC EC Planning Standards Subcommittee
- G3 – Southern Company
- G4 – ISO/RTO Council
- G5 - NPCC CP9 Reliability Standards WG
- G6 – Pacific Gas & Electric
- G7 - WECC Reliability Coordination Comments Work Group

Index to Questions, Comments, and Responses

1. Do you agree that there is a reliability-related need to modify FAC-008 and FAC-009? If not, please explain in the comment area.10

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.....13

3. The requesters merged FAC-008 and FAC-009 into a single standard to eliminate cross references between the standards. Do you agree with this modification? If not, please explain in the comment area.18

4. The drafting team modified the applicability section to clarify that the standard applies to all Transmission Owners but only to Generator Owners that own units connected directly to the Bulk Power System through a generator step-up transformer. Do you agree with this modification? If not, please explain in the comment area.21

5. Do you agree with the change made to FAC-008-1 to specifically require that the methodology for Facility Ratings include the underlying assumptions, design criteria and methods used to determine equipment ratings? (This addresses one of FERC’s issues.).....28

6. Do you agree with the change made to FAC-008-1 to specifically require that the methodology used to establish the Equipment Rating for each component of the Facility is consistent with one or more commonly accepted industry Equipment Rating standards or practices? (This addresses one of FERC’s issues.) Note that the footnote associated with this requirement clarifies what constitutes an accepted industry equipment rating standard or practice.32

7. The requesters considered whether to include a requirement, as proposed by FERC, to identify the limiting component(s) and define for all critical facilities the increase in rating based on the next limiting component(s) but did not add such a requirement because the reliability-related need for such a requirement is not apparent. Are you aware of any reliability-related need for the proposed requirement that would warrant the inclusion of this requirement into the standard?38

8. In FAC-008-2, is the role of the planning authority clear or does the responsibility of the Planning Authority in FAC-008-2 need additional clarification?41

9. The versions of FAC-008 and FAC-009 that were approved in 2006 did not include violation risk factors or mitigation time horizons. The requesters transferred the violation risk factors developed by the Violation Risk Factors Drafting Team into the new standards and added Mitigation Time Horizons. Do you agree with the Mitigation Time Horizon for each requirement in the proposed standard? If not, please identify any requirement with a time horizon you feel is incorrect.44

10. The requesters modified the measures to provide examples of what could be considered as “evidence.” Do you agree with the modifications made to the measures to provide examples of evidence?49

11. The latest version of the *Reliability Standards Development Procedure* requires that each standard include “violation severity levels” rather than “levels of non-compliance.” “Violation severity levels” identify how badly an entity violated each requirement, and are not linked to the reliability-related impact of violating a requirement. (The reliability-related impact of violating a requirement is now identified in the “Violation Risk Factor” appended to each requirement.) Do you agree with the Violation Severity Levels for each of the proposed standards? If you disagree with any of the Violation Severity Levels for the proposed standards, please identify the standard and requirement you feel has an incorrect Violation Severity Level.52

12. Are you aware of any requirement in this standard that has an unnecessary adverse impact on energy markets? Please identify the requirement and its adverse impact here.57

13. Are you aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement or agreement?59

14. The compliance monitoring information and data retention periods were modified by compliance personnel. Do you agree with these changes?.....61

Consideration of Comments on 1st Posting of Facility Ratings SAR and Standard

- 15. If you have any other comments on this set of standards or its implementation plan that you have not already submitted above, please provide them here.64

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

1. Do you agree that there is a reliability-related need to modify FAC-008 and FAC-009? If not, please explain in the comment area.

Summary Consideration: Most commenters indicated that there is a reliability-related need to modify FAC-008 and FAC-009.

Question #1			
Commenter	Yes	No	Comment
AEP		<input checked="" type="checkbox"/>	It appears from the SAR (Industry Need) that the motivation for these proposed changes was the FERC October 20, 2006 NOPR on Mandatory Reliability Standards.
Response: Most stakeholders agreed that there is a reliability-related need to modify these standards. The requirements that were modified clarified that the methodology must meet a technical threshold and should improve reliability. By providing more detailed requirements there should be more valid entries into the calculations for the associated ratings.			
Progress Energy		<input checked="" type="checkbox"/>	While it may streamline the compliance process it does not seem to be a reliability related need.
Response: Most stakeholders agreed that there is a reliability-related need to modify these standards. The requirements that were modified clarified that the methodology must meet a technical threshold and should improve reliability. By providing more detailed requirements there should be more valid entries into the calculations for the associated ratings.			
SERC EC Planning Stds Subcommittee Ameren		<input checked="" type="checkbox"/>	There is no reliability need to modify these standards, as the existing standards are adequate.
Response: Most stakeholders agreed that there is a reliability-related need to modify these standards.			
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	While the changes proposed with this SAR attempt to clarify and consolidate existing FAC-008 and FAC-009, and in general I support the SAR; I do not believe it is needed for reliability reasons.
Response: Most stakeholders agreed that there is a reliability-related need to modify these standards.			
ITC Transmission		<input checked="" type="checkbox"/>	The revised Standard will not change any Reliability-related practices.
Response: Most stakeholders agreed that there is a reliability-related need to modify these standards.			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We believe the items identified by FERC and stakeholders are already included in FAC-008-1 and FAC-009-1. In addition, the items identified by FERC and stakeholders will not improve the reliability of the power system and therefore there is not a reliability-related need to modify FAC-008-1 and FAC-009-1. The items identified by FERC and the stakeholders may improve the consistency of facility ratings.

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #1			
Commenter	Yes	No	Comment
			The combination of FAC008-1 and FAC-009-1 into one standard FAC-008-2 is acceptable. However, there is no reliability-related need for this combination and modification.
Response: There is no reliability-related need to combine the two standards, but the modification does make the standards easier to follow.			
Relay Loadability SDT	<input checked="" type="checkbox"/>		FAC-008 currently does not include response of protective relays to load (relay loadability) as a consideration in determination of facility ratings. Relay loadability has been a consistent contributory or causal factor to major disturbances, both in North America and elsewhere in the world. The draft PRC-023 - Transmission Relay Loadability specifically requires that Relay Loadability be included in Facility Ratings, but, without a corresponding requirement in the FAC standards, this requirement will be difficult to enforce.
Response: Please see R1.4.1 (The scope of equipment addressed shall include, but not be limited to , generators, transmission conductors, transformers, relay protective devices , terminal equipment, series and shunt compensation devices.)			
Florida Reliability Coordinating Council	<input checked="" type="checkbox"/>		NERC as the ERO, along with its regulated stakeholders, need to use the Standards Process to continue refining the industry's suite of standards, especially to address inconsistencies within the standards. The process also serves to address real or perceived reliability concerns in a balanced and open forum.
Response: Agree.			
PSC of South Carolina	<input checked="" type="checkbox"/>		
BPA	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #1			
Commenter	Yes	No	Comment
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Florida Power & Light Co.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
CPS Energy	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
American Transmission Co. LLC	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

2. Do you agree with the scope of the SAR? If not, please explain in the comment area.

Summary Consideration: Most commenters indicated agreement with the scope of the SAR.

Question #2			
Commenter	Yes	No	Comment
APPA		<input checked="" type="checkbox"/>	The SAR should make it very clear that the Bulk Electric System as defined in the Glossary is the scope of the proposed standard. This standard represents another illustration of why NERC's current definition of the BES should continue to be used, and that any reference to the bulk power system be omitted. It will be difficult enough for the subject entities to develop and document the methods used to rate their BES facilities under the current NERC definition. Expanding the requirements to a substantial universe of additional facilities that do not materially impact bulk transmission system operations will make meeting the requirements much more difficult. If FERC reliability standards Final Rule extends the applicability of NERC standards to include a broader set of facilities, the SAR should be reissued for additional comment.
Response: The drafting team replaced all references to bulk power system with Bulk Electric System in both the SAR and the draft standard.			
SERC EC Planning Stds Subcommittee		<input checked="" type="checkbox"/>	The scope is not well defined in the document.
Response: Most commenters supported the scope. Comments must be more specific.			
Ameren		<input checked="" type="checkbox"/>	Changing the language in the purpose from "established methodologies" to so called "technically sound principles" is a significant change, and is not necessary. The existing standards are adequate and there is no need for a scope change. The introduction of an assessment of the ratings methodology is a clear change of intent and is inappropriate.
Response: The intent in modifying the purpose was to demonstrate that the methodology used is subject to technical review and is technically sound.			
Salt River Project		<input checked="" type="checkbox"/>	On FAC 008-1: Per the FERC NOPR: There is no need to require a rating increase based on the next in line limiting element and there is no need to identify this next limiting element in order to meet NERC requirements. What difference does it make what the next limiting element is??
Response: Most stakeholders agreed with you.			
Entergy Services,		<input checked="" type="checkbox"/>	We are concerned about the open-ended statements in these recent SARs. Those

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #2			
Commenter	Yes	No	Comment
Inc.			<p>statements should be deleted or modified. This SAR contains the statement that - development may include other improvements to the standards deemed appropriate - . This statement should be modified to state that - development may include other improvements to THE STANDARDS IDENTIFIED IN THIS SAR - . Approval of this SAR is not an open-ended approval to change standards and requirements other those identified in this SAR.</p> <p>In addition, R5 requires the TO and GO to provide facility ratings to many entities. The provision of facility ratings is not bound and Entergy suggests the provision of those ratings for ALL facilities is burdensome and far from necessary. The provision should be limited to those facilities that are limiting transmission transfer capabilities, or contributing to transmission congestion.</p>
<p>Response: Experience has shown that past drafting teams were hampered in their progress by having a scope that was too narrowly defined. However, in this case this paragraph was not needed because of the limited objective of the changes identified.</p> <p>R5 – the distribution of facility ratings is limited to associated Reliability Coordinator(s), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities. As envisioned, not all entities identified will need all facility ratings.</p>			
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	<p>SAR Purpose item #4 states "Bring the standards into conformance with the latest version of the Reliability Standards Development Procedure....". The SAR and draft changes include the addition of (Mitigation Time Horizons (MTHs)) and (Violation Severity Levels, Lower, Moderate, High and Severe). The MTHs and definitions for VSLs are not part of the Reliability Standards Development Procedure version #6 or proposed version #7 currently being developed. The draft changes also include (Violation Risk Factors (VRFs)) which are being removed from the standards procedure in version #7.</p> <p>We would recommend to amend the procedure to provide a consistent framework for standards development instead of adding 10 pages of filler and background to each SAR and comment form that is being generated.</p>
<p>Response: The full language of that bullet also includes the following". . . and the ERO Rules of Procedure." Time Horizons and Violation Severity Levels are defined in the ERO Rules of Procedure and are needed to implement the Sanctions Guidelines.</p> <p>Mitigation Time Horizons (now called Time Horizons) were introduced in the ERO Rules of Procedure as one of the elements used to determine the size of a sanction. Requirements that must be mitigated in real-time operations would have a larger</p>			

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #2			
Commenter	Yes	No	Comment
<p>sanction than those that could be mitigated over a longer time period.</p> <p>The latest version of the Reliability Standards Development Procedure did not include time horizons – this was an omission in bringing the manual into conformance with the latest ERO Rules of Procedure and this omission should be corrected with the next normal revision to the manual. In the meantime, stakeholders will be asked to comment on and approve time horizons as they are developed with standards. The alternative is to have these time horizons identified outside the standard development process, and stakeholders indicated they wanted a voice in the selection of all the compliance elements within standards.</p> <p>NERC did file a request for interpretation or a rehearing on the matter of the determination of Violation Risk Factors – but FERC has not responded to that request, and until there is a response with a final ruling, NERC will continue to develop the Violation Risk Factors as part of the standards development procedure.</p> <p>The standards staff drafted the definitions used to distinguish Violation Severity Levels and sought feedback on the appropriateness of their use from the Certification and Compliance Committee and the Standards Committee in December, 2006. Both committees endorsed their use as ‘guidelines’ to help drafting teams bring a more uniform approach to the determination of Violation Severity Levels. The drafting teams make only the initial proposal for violation severity levels – these are posted for comment and stakeholders through their comments and then through the ballot process make the final determination on appropriate Violation Severity Levels.</p>			
American Transmission Co. LLC		<input checked="" type="checkbox"/>	The scope should be expanded to provide attributes that will be used to determine if a company is using a commonly accepted industry Equipment Rating standards or practices.
<p>Response: Because the methodology is subject to peer review, if there is a concern that a neighbor entity does not employ a rating method that is consistent with industry equipment rating or practice, then that practice can be reviewed. The standard does require the methodology to be provided to other entities and does require that the developer respond to technical concerns about that methodology.</p>			
ISO/RTO Council	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	We agree with the general scope. However, we do not think this standard would apply to the Transmission Planner as so indicated in the check-box in the SAR's Reliability Functions Table. The standard should only apply to the generation owner and transmission owner.
<p>Response: The SAR was modified to remove the Transmission Planner because, as you noted, there are no requirements for the Transmission Planner.</p>			
IESO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	We agree with the general scope. However, we do not understand how this standard is to apply to the Transmission Planner as indicated in the Standard Authorization Request. If this standard is to apply to the Transmission Planner, the Applicability Section of the draft standards needs to reflect this.

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #2			
Commenter	Yes	No	Comment
			Further, if the standard applies to the Transmission Planners, should in not also be applicable to the Reliability Coordinators and Planning Authorities as they play a similar role as the Transmission Planner in M3?
<p>Response: The SAR was modified to remove the Transmission Planner because, as you noted, there are no requirements for the Transmission Planner.</p> <p>The standard does not apply to the Transmission Planner, Reliability Coordinator or Planning Authorities (Planning Coordinators)</p>			
Progress Energy	<input checked="" type="checkbox"/>		Yes, with the exception of identifying the next limit for a critical facility.
<p>Response: Note that most commenters indicated that there is no reliability-related reason to identify the next limit for a critical facility and this was not added to the standard.</p>			
AEP	<input checked="" type="checkbox"/>		
PSC of South Carolina	<input checked="" type="checkbox"/>		
BPA	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Florida Power & Light Co.	<input checked="" type="checkbox"/>		
ITC Transmission	<input checked="" type="checkbox"/>		
Pacific Gas & Electric	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #2			
Commenter	Yes	No	Comment
Company			
CPS Energy	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

3. The requesters merged FAC-008 and FAC-009 into a single standard to eliminate cross references between the standards. Do you agree with this modification? If not, please explain in the comment area.

Summary Consideration: Most commenters indicated support for merging FAC-008 and FAC-009.

Question #3			
Commenter	Yes	No	Comment
APPA		<input checked="" type="checkbox"/>	The merger is a good start. However, the SAR does not direct the SDT to make it clear where the TO and GO will post the information and in what format. The SAR should make this clear to the STD.
<p>Response: This standard does not require any posting of information. The standard is supposed to identify 'what' must be accomplished not 'how.'</p>			
Xcel Energy		<input checked="" type="checkbox"/>	<p>Xcel Energy Services Inc. believes that this standard should not apply to any Generator Owners. Generator Owners perform real and reactive power capability testing of their equipment per Standards MOD-024 and MOD-025 which determine the actual rating of the facility.</p> <p>The three Regional Reliability Organizations affecting Xcel Energy Services Inc. (MRO, SPP, and WECC) already have requirements in place for determining facility ratings per these standards. The ratings determined by this testing are what are used in load flow and stability analyses, not a calculated number based on the electrical equipment nameplate values and assumed temperatures.</p> <p>It appears that FAC 008 will require yet another method that could likely be in conflict with the requirements already in place. Requiring Generator Owners to comply with this standard does nothing to assure the reliability of the Bulk Power System.</p> <p>We maintain that creating another set of equipment ratings for generating facilities does not enhance the reliability of the electric grid, in fact, the potential confusion about which rating to use in doing analyses decreases the reliability of the electric grid.</p>
<p>Response:</p> <p>The intent of FAC-008 is to establish the facility ratings – MOD-024 deals with MW only and MOD-025 deals with MVAR only – MOD-024 and MOD-025 are used to verify ratings, not to establish ratings.</p> <p>The methodology used to verify the generator capabilities under MOD-024 and MOD-025 may be used to assist in meeting FAC-008. Capability verification testing under a specific set of conditions, is not the same as a facility rating. The approved definition for Facility Rating is: "The maximum or minimum voltage, current, frequency, or real or reactive power flow through a facility that does not violate the applicable equipment rating of any equipment comprising the facility."</p>			

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

<p>The purpose of statement of MOD-025 is: "To ensure accurate information on generator gross and net Reactive Power capability is available for steady-state models used to assess Bulk Electric System reliability." The existing approved version of the standard does apply to Generator Owners so this is not a change made as part of this revision.</p>			
SERC EC Planning Std's Subcommittee Ameren		<input checked="" type="checkbox"/>	Combining the standards is a matter of convenience, but not a necessity. Further, it clouds the two distinct activities of providing the ratings methodology and then providing the ratings data based on that methodology.
<p>Response: Most stakeholders supported merging the two standards.</p>			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We do not believe the elimination of cross references between standards is a valid reason to spend valuable industry time, effort and expenses to modify standards.
<p>Response: Most stakeholders supported merging the two standards.</p>			
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		I believe the merging of these two standards should be viewed as beneficial.
<p>Response: The drafting team agrees.</p>			
PSC of South Carolina	<input checked="" type="checkbox"/>		
BPA	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
Southern Company Services	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Florida Power & Light Co.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ITC Transmission	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
CPS Energy	<input checked="" type="checkbox"/>		
Florida Reliability Coordinating Council	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
American Transmission Co. LLC	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

4. The drafting team modified the applicability section to clarify that the standard applies to all Transmission Owners but only to Generator Owners that own units connected directly to the Bulk Power System through a generator step-up transformer. Do you agree with this modification? If not, please explain in the comment area.

Summary Consideration: Most commenters disagreed with the modifications made to describe which Generator Owners must comply with the requirements in the standard. The drafting team modified the applicability section of the standard so it now applies to all Generator Owners.

Question #4			
Commenter	Yes	No	Comment
AEP		<input checked="" type="checkbox"/>	First, the SAR refers to Bulk Electric System not the Bulk Power System. In any case to avoid needless definitional problems, the cut-off should be a function of MW generation connected to a single bus or station. Such as all generators connected at 100 kV and above, and all generators connected below 100 kV that have a total nameplate generation of 100 MW or greater.
<p>Response: The question should have used the term, 'Bulk Electric System' rather than Bulk Power System. The drafting team replaced all references to 'Bulk Power System' with 'Bulk Electric System.'</p> <p>The drafting team modified the applicability section of the standard so it now applies to all Generator Owners.</p>			
APPA		<input checked="" type="checkbox"/>	I agree with the including the GO that owns a unit directly connected to the Bulk Electric System, not the Bulk Power System. It is important the SAR directs the SDT to insure it always reference the BES definition and not reference bulk power system. The BES should be used as explained in Question 2 above.
<p>Response: The question should have used the term, 'Bulk Electric System' rather than Bulk Power System. The drafting team replaced all references to 'Bulk Power System' with 'Bulk Electric System'</p>			
Progress Energy		<input checked="" type="checkbox"/>	The scope of equipment for which facility ratings must be addressed is provided in R1.4.1. which seems to include facility ratings of "generators" as worded. Is there a relationship between this standard and the MOD standards addressing generator MW and MVAR capabilities/ratings? If the intent is to address facility ratings of those facilities that interconnect generators owned by TOs or GOs, then a better description in R1.4.1 may be "generator interconnecting facilities that operate at voltages 100kV or above".
<p>Response: The intent of FAC-008 is to establish the facility ratings – MOD-024 deals with MW only and MOD-025 deals with MVAR only – MOD-024 and MOD-025 are used to verify ratings, not to establish ratings.</p>			

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #4			
Commenter	Yes	No	Comment
<p>The methodology used to verify the generator capabilities under MOD-024 and MOD-025 may be used to assist in meeting FAC-008. Capability verification testing under a specific set of conditions, is not the same as a facility rating. The approved definition for Facility Rating is: "The maximum or minimum voltage, current, frequency, or real or reactive power flow through a facility that does not violate the applicable equipment rating of any equipment comprising the facility."</p>			
WECC Reliability Coord Comments WG		<input checked="" type="checkbox"/>	There are generating plants that can have significant impact on the bulk electric system that are not directly connected to the system through a step-up transformer. An example is a situation with units that feed into the Bulk Power System through a dedicated network that in turn feeds into the system, as opposed to each generating unit feeding to the system through a directly-connected step-up transformer. The current applicability would exclude those Generator Owners.
<p>Response: Agreed. The drafting team modified the applicability section of the standard so it now applies to all Generator Owners.</p>			
ERCOT		<input checked="" type="checkbox"/>	Further clarification of intent is needed on this topic. The recent outage report by UCTE with regard to the continental European grid disturbance on November 4, 2006 indicates that distributed generation, even on the distribution system, contributed significantly to the outage. This is recognized in ERCOT also, with the possible aggregate total of wind generation representing a large value. If the intent is to say that small generators do not have to comply with this standard, perhaps language should indicate that this does not apply to generators smaller than 10 MW, or to an aggregate of 10 MW or less of generators for a single connection point to the BES.
<p>Response: The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. There was no intent to eliminate small generators from compliance with this requirement.</p>			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We suggest the changes to be made to the Applicability section should be as follow. The industry has determined that NERC reliability standards need to be more definitive as to which entities the standards are Applicable. Therefore, Entergy strongly suggests that all Applicability assignments in ALL standards and requirements be changed to be very specific. Therefore, we suggest the Applicability of each standard be changed to - ALL REGISTERED xxx, NO ADDITIONAL CONDITIONS NOR LIMITATIONS WILL BE ADDED TO THE APPLICABILITY OF THIS STANDARD, where xxx is the functional entity to whom the standard applies. Therefore, the Applicability of FAC-008-2 should not be Transmission Owner and Generation Owner but should be changed to - ALL REGISTERED TRANSMISSION OWNERS, NO ADDITIONAL CONDITIONS NOR LIMITATIONS WILL BE ADDED TO THE APPLICABILITY OF THIS STANDARD -, and, -

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #4			
Commenter	Yes	No	Comment
			ALL REGISTERED GENERATION OWNERS, NO ADDITIONAL CONDITIONS NOR LIMITATIONS WILL BE ADDED TO THE APPLICABILITY OF THIS STANDARD -.
<p>Response: Drafting teams were given the following guidance – if the standard will be applicable to all who register to perform a specific function, then there is no need to add more words to the applicability section – in other words, the ‘default’ is ‘all registered Balancing Authorities.’ The applicability section will only include additional clarification when the applicability is ‘other than all’.</p>			
IESO		<input checked="" type="checkbox"/>	<p>The intent of the requirement is to ensure that facilities are rated properly to identify constraints that may limit power transfer or generation output, in addition to respecting equipment limitation for reliable operation.</p> <p>Some generators may not be connected directly to the BES through a step up transformer. They may be connected to some radial transmission lines before their outputs are incorporated in the BES. Yet their generation levels which may be restricted by the connecting facilities must be properly accounted for in assessing the amount of available resource to support reliable operation. We suggest that the qualifying statement be removed.</p>
<p>Response: Agreed. The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. This supports your suggestion.</p>			
NPCC CP9 Reliability Standards WG ISO-NE Hydro Québec TransÉnergie		<input checked="" type="checkbox"/>	NPCC participating members (ISO New England) (Hydro Québec TransÉnergie) believe generator ratings, even if not connected directly to the Bulk Electric System by a step-up transformer, should be provided. That information is necessary to evaluate System Limits.
<p>Response: Agreed. The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. This supports your suggestion.</p>			
New York ISO		<input checked="" type="checkbox"/>	NYISO believes generator ratings, even if not connected directly to the Bulk Electric System by a step-up transformer, should be provided. That information is necessary to evaluate System Limits. It may be more appropriate to use the phrase "that impact the Bulk Power System".
<p>Response: Agreed. The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. This supports your suggestion.</p>			

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #4			
Commenter	Yes	No	Comment
WECC Reliability Coordination Comments Work Group		<input checked="" type="checkbox"/>	There are generating plants that can have significant impact on the bulk electric system that are not directly connected to the system through a step-up transformer. An example is a situation with units that feed into the Bulk Power System through a dedicated network that in turn feeds into the system, as opposed to each generating unit feeding to the system through a directly-connected step-up transformer. The current applicability would exclude those Generator Owners.
Response: Agreed. The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. This supports your suggestion.			
Xcel Energy Services Inc. dba NSP, PSCo, SPS		<input checked="" type="checkbox"/>	Xcel Energy Services Inc. believes that this standard should not apply to any Generator Owners. Generator Owners perform real and reactive power capability testing of their equipment per Standards MOD-024 and MOD-025 which determine the actual rating of the facility. The three Regional Reliability Organizations affecting Xcel Energy Services Inc. (MRO, SPP, and WECC) already have requirements in place for determining facility ratings per these standards. The ratings determined by this testing are what are used in load flow and stability analyses, not a calculated number based on the electrical equipment nameplate values and assumed temperatures. It appears that FAC 008 will require yet another method that could likely be in conflict with the requirements already in place. Requiring Generator Owners to comply with this standard does nothing to assure the reliability of the Bulk Power System. We maintain that creating another set of equipment ratings for generating facilities does not enhance the reliability of the electric grid, in fact, the potential confusion about which rating to use in doing analyses decreases the reliability of the electric grid.
Response: MOD-024 and MOD-025 do not determine the actual rating – they determine the capability of the equipment, which is not the same as the Facility Rating. Note that the drafting team did modify FAC-008 to separate out the Generator Owner’s requirement to have a Facility Rating methodology for its Generating facilities – and the revised requirement should make it much easier for Generator Owners to comply with the standard using available information, including the results of tests.			
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	Modifications to the purpose included the removal of "Bulk Electric System (BES)" terminology yet it was added to the applicability definition for Generator Owners. This could lead to confusion when interpreting the standard.
Response: Agreed. The drafting team replaced all references to ‘bulk power system’ with ‘Bulk Electric System’ in the SAR and the standard.			
American		<input checked="" type="checkbox"/>	ATC does not agree with the modifications to Generator Owners in the Applicability

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Question #4			
Commenter	Yes	No	Comment
Transmission Co. LLC			<p>Section. The purpose statement states that this Standard is to ensure facility ratings used in the reliability planning and operations of the bulk power system (BPS). This is in contrast to the proposed Applicability Section changes that would limit the standard to those Generator Owners that have units connected to the Bulk Electric System (BES) which by definition is 100 kV or higher.</p> <p>ATC disagrees with the ownership qualifications for Generator Owners. How much ownership in the unit does a Generator Owner need to have in order to determine if all of their units must comply? In other words if a Generator Owner owns a small percent of a single generator connected to the BES are they going to be held accountable to this standard for all of their units even those that would not qualify?</p> <p>For these two reasons ATC does not believe that the proposed language for Generator Owners is appropriate. Any exclusion should be limited to those units in which their output energy is transferred and consumed entirely on the distribution system.</p>
<p>Response: The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. All references to 'bulk power system' in the SAR and standard were replaced with, 'Bulk Electric System'.</p>			
ISO/RTO Council	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The intent of the requirement is to ensure that facilities are rated properly to identify constraints that may limit power transfer or generation output, in addition to respecting equipment limitations for reliable operations.</p> <p>Some generators may not be connected directly to the BES through a step up transformer. They may be connected to some radial transmission lines before their outputs are incorporated in the BES. Yet their generation levels which may be restricted by the connecting facilities must be properly accounted for in assessing the amount of available resource that can be provided to support reliable operation. We suggest modifying this qualifier to: "that impact the Bulk Electric System". This qualification should also be applied to the transmission owner as well.</p>
<p>Response: The drafting team modified the applicability section of the standard so it now applies to all Generator Owners. This modification seemed to be supported by most commenters.</p>			
Dynegy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>The STD should clarify the intent of this change. Is it to exclude generators connected at a voltage lower than 100 kV from the standard's requirements?</p>

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Question #4			
Commenter	Yes	No	Comment
Response: There were many stakeholders who indicated that the original language eliminated consideration of some generators that are connected to the Bulk Electric System, and the drafting team modified the applicability section of the standard so it now applies to all Generator Owners.			
Baltimore Gas & Electric	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Relay Loadability SDT	<input checked="" type="checkbox"/>		This standard should also be applicable to Distribution Providers that own equipment that limits Facility Ratings.
Response: This standard is only applicable to the Facility Rating used to plan and operate the Bulk Electric System.			
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		While the PSS has no problem with this, we note that the redline of the standard used BES in 4.2, while the term BPS is listed in Question 4 above. BES and BPS both are used at various points in the redline. The PSS feels that one term needs to be defined and used consistently throughout the SAR and standard.
Response: Agreed. The drafting team replaced all references to 'bulk power system' with 'Bulk Electric System' in the SAR and the standard.			
Ameren	<input checked="" type="checkbox"/>		This change seems reasonable from a transmission perspective. However, we want to ensure that transmission owners are not responsible for maintaining ratings and ratings methodologies of power production equipment connected to their transmission systems.
Response: Each facility owner is responsible for the methodology for rating the facilities it owns – if a Generator Owner owns both generating and transmission facilities – then the Generator Owner is acting as both a Generator Owner and a Transmission Owner and would need to have a facility ratings methodology for both its generation and its transmission facilities. Facility owners are not responsible for rating facilities owned by others.			
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		The proposed standard refers to Bulk Electric System. However, this Question 4 references Bulk Power System. Since the definitions are different, this will need to be resolved when we mov forward.
Response: Agreed. The drafting team replaced all references to 'bulk power system' with 'Bulk Electric System' in the SAR and the standard.			
PSC of South Carolina	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		

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Question #4			
Commenter	Yes	No	Comment
Southern Company Services	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ITC Transmission	<input checked="" type="checkbox"/>		
CPS Energy	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		

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5. Do you agree with the change made to FAC-008-1 to specifically require that the methodology for Facility Ratings include the underlying assumptions, design criteria and methods used to determine equipment ratings? (This addresses one of FERC’s issues.)

Summary Consideration: Most commenters indicated support for the change made to FAC-008 to specifically require that the methodology for Facility Ratings include the underlying assumptions, design criteria and methods used to determine equipment ratings.

Question #5			
Commenter	Yes	No	Comment
Entergy Services, Inc.		<input checked="" type="checkbox"/>	<p>We agree with the concept of including significant, or pertinent, underlying assumptions. However, it is impossible to include all of them, or even many of the more significant assumptions. Every methodology includes built-in assumptions which will be impossible for a user of that methodology to document. For instance, the draft FAC-008-2 states in Footnote 1 that one of the acceptable Equipment Rating practices is to use the nameplate rating. No one but the manufacturer will be able to document the assumptions that are used to develop the nameplate rating, and even the manufacturer will not be able to identify all the major assumptions he used because of built-in assumptions to his analysis. Also, if we use a published industry-accepted practice such as CIGRE guidelines we still will not be able to identify many of the built-in assumptions.</p> <p>The best we can do is to identify the significant assumptions we used to develop ratings. An example of an assumption we can state might be the perpendicular wind speed used to develop transmission line ratings.</p>
<p>Response: The intent of the standard is to require you to document the assumptions you actually use and is not intended to require entities to adopt an extensive list of assumptions that aren’t used. If you use manufacturer nameplate rating, you don’t have to document the manufacturer’s assumptions.</p>			
American Transmission Co. LLC		<input checked="" type="checkbox"/>	See our comment to question number 2.
<p>Response: Please see the response to your comment on question 2.</p>			
Ameren	<input checked="" type="checkbox"/>		This should not be a significant burden on transmission owners under FERC jurisdiction and may be a duplication of the information required as part of FERC 715 Part 4 filing. There may be issues with the level of detail required to meet this standard.
<p>Response: The intent of the standard is to require you to document the assumptions you actually use and is not intended to</p>			

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Question #5			
Commenter	Yes	No	Comment
require entities to adopt an extensive list of assumptions that aren't used.			
Dynegy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Yes, we agree with the concept that the methodology should include the underlying assumptions, design criteria and methods used to determine equipment ratings. However, we believe that R1.2.1-R1.2.4 of the standard are overly prescriptive in stating that the methodology should document how certain factors are required to be considered in determining Equipment Ratings. In fact, some of the listed factors will not pertain to certain pieces of equipment such as generators. We recommend deleting R1.2.1-R1.2.4. If these Requirements are not deleted then the last phrase in R1.2 should be revised to read "..., including identification of how such factors as the following were considered:"
Response: Factors that don't pertain to certain facilities don't need to be added to an existing methodology - The methodology can include a statement that indicates some elements were considered and are not included in the calculation of the facility rating because they aren't applicable.			
IESO	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
APPA	<input checked="" type="checkbox"/>		The SAR is appropriate as long as the Standard does not limit any entity from using local facility rating parameters such as regional design temperatures, wind speeds and so-on. If any of the methodologies for Facilities Ratings methodologies prevent the use of regional parameters that should not be used.
Response: The standard does not prohibit entities from using local or regional design criteria.			
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		Yes, the underlying assumptions and design criteria are of paramount importance in determining a facility rating. It can be quite possible that two companies utilize the same methodology and calculate very different ratings. This can be due to a number of parameter differences that are used in the calculations, including but not limited to, ambient temperature, operating temperature and wind speed.
Response: Agreed.			
ITC Transmission	<input checked="" type="checkbox"/>		Identifying the underlying assumptions is appropriate, provided that the "permitted" assumptions are sufficiently broad to include operating experience and a level of risk management. See the answer to comment 6, below.
Response: The intent of the standard is to allow a broad set of assumptions. Please see the response to your comment on question 6.			
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		This requirement would be workable if foot note 1 in the proposed standard applies. (Foot note 1 states that, the industry Equipment Rating standard or practice used must be either

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Question #5			
Commenter	Yes	No	Comment
			a nameplate rating; an IEEE Standard; or a recognized, published industry-accepted practice such as a CIGRE guideline, the Westinghouse Transmission and Distribution Handbook, or other similar document.) It should be noted the methodologies used in developing equipment ratings may not have always been developed in an open forum. In addition, the standard should allow the Facility Owners to temporarily derate a piece of equipment during emergencies based on operating conditions and physical conditions of the equipment without following all the steps in the established methodology.
Response: Your comments support the language in the proposed standard.			
AEP	<input checked="" type="checkbox"/>		The changes made appropriately address the NERC issues of October 20, 2006.
Response: Your comments support the language in the proposed standard.			
PSC of South Carolina	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
Southern Company Services	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		

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Question #5			
Commenter	Yes	No	Comment
Florida Power & Light Co.	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
CPS Energy	<input checked="" type="checkbox"/>		
Florida Reliability Coordinating Council	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
Florida Power & Light Company	<input checked="" type="checkbox"/>		

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6. Do you agree with the change made to FAC-008-1 to specifically require that the methodology used to establish the Equipment Rating for each component of the Facility is consistent with one or more commonly accepted industry Equipment Rating standards or practices? (This addresses one of FERC’s issues.) Note that the footnote associated with this requirement clarifies what constitutes an accepted industry equipment rating standard or practice.

Summary Consideration: Most commenters agreed with the change made to FAC-008 to specifically require that the methodology used to establish the Equipment Rating for each component of the Facility is consistent with one or more commonly accepted industry Equipment Rating standards or practices.

Question #6			
Commenter	Yes	No	Comment
APPA		<input checked="" type="checkbox"/>	The concern is that an accepted industry Equipment Rating methodology will limit entities from using facility rating parameters such as regional temperatures, wind speeds and other parameters that vary by location. The SAR should assure the industry that the entities will be allowed to use regional characteristics as inputs to implementation of a common regional rating method for equipment rating, provided inputs are coordinated between all entities within the region.
<p>Response: You must be consistent to a methodology – your assumptions are inputs (such as temperature, wind speeds and other parameters that differ by geographical locations) into the methodology. As long as the regional equipment rating methodology is consistent with an established industry Equipment Rating standard or practice then the regional methodology you use, would meet this requirement.</p>			
Southern Company Services		<input checked="" type="checkbox"/>	Having a documented technical basis for the subject equipment ratings is a worthy goal. However, the standard should have provisions for exceptions to this for some older equipment where records may be difficult or impossible to locate. For example, some older generating plants have generator buses that were field fabricated using copper tubing or bar and purchased hardware. These older plants may not have bus work that was purchased using equipment specs and standards. The capability of such units have been demonstrated through many years of successful operation, which should be acceptable in lieu of design records where such records are not available or very burdensome to locate.
<p>Response: The standard was modified to separate out the requirements for the generator facility rating methodology and the new requirement allows the use of performance history or testing accompanied by engineering analysis. This should eliminate the problem of wasting time hunting for historical records. This modification does not change the intent, but does provide clarification.</p>			

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Question #6			
Commenter	Yes	No	Comment
SERC EC Planning Stds Subcommittee		<input checked="" type="checkbox"/>	There is too much ambiguity in the phrase "is consistent with one or more commonly accepted industry Equipment Rating Standard or practice."
Response: Footnote #1 provides examples to eliminate ambiguity without being too restrictive.			
Pepco Holdings Inc., Affiliates		<input checked="" type="checkbox"/>	The requirement is acceptable, however exception is taken to the footnote defining terminology as it could be misconstrued to exclude RTO published guidelines. Suggest the footnote be modified to also include Regional Organization guidelines.
Response: If the RTO has a regional equipment rating methodology that is consistent with an established industry Equipment Rating standard or practice then the regional methodology you use, would meet this requirement.			
IESO		<input checked="" type="checkbox"/>	<p>We agree with the general requirement. However, we would suggest the following modification to the sub-requirements:</p> <p>R 1.1: Add the phrase "the framework of" after "consistent with" so that the sentence reads: The methodology used to establish the Equipment Rating for each component of the Facility shall be consistent with THE FRAMEWORK OF" one or more commonly accepted industry Equipment Rating standards or practices. This change is proposed since some transmission and generator owners may apply some variations to the detailed assumptions and parameters that are somewhat different from established standards and practices such as the IEEE approach, but the methodology is consistent with the general framework of these established standards and practices.</p> <p>R 1.4: Delete the word "major" since it is not defined; and change "bulk power system" to "bulk electric system" since the latter term is defined and still in effect.</p> <p>R 5: Add a phrase "and as changes occur" at the end of the sentence to ensure that between scheduled updates, changes to facilities ratings are communicated to the functional entities that use these ratings as these incremental changes would not necessarily coincide with the scheduled communication of data period.</p>
Response: The suggested modification makes the requirement more ambiguous. The industry standards for equipment ratings leave room for engineering judgment. The word 'major' was removed as suggested. The drafting team also changed all references to bulk power system to Bulk Electric System.			

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Question #6			
Commenter	Yes	No	Comment
R5 already includes language to require providing ratings, including modifications, in accordance with the schedule provided by requestors – and that schedule can even request updates in real time if that is what the end user needs.			
ITC Transmission		<input checked="" type="checkbox"/>	"Commonly accepted" practices should be broadened to include operating experience and knowledge of the system. Some facility ratings may not be firmly rooted in IEEE/CIGRE standards or Westinghouse T&D guidelines, but rather based on historical factors and operating experience. Transmission Owners should be allowed to continue to use those ratings provided they are clearly identified in their methodology assumptions for those particular facilities.
Response: The intent of the modifications to this standard is to ensure that all facility owners are following sound technical practices in establishing facility ratings. If the local practices are consistent with IEEE, CIGRE or other industry standards, then there shouldn't be a need to modify those practices but there is a need to document that the local practice does have a sound technical basis by identifying the industry standard that is being used.			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We do not agree with this requirement since it limits innovation and development of new or modified methodologies. How will new, more accurate methodologies become, as stated in Footnote 1 - recognized, published industry-accepted practice -? Who will be the sanctioning body to review and approve the use of a new or modified methodology.
Response: Footnote 1 allows for the use of other not yet named references.			
American Transmission Co. LLC		<input checked="" type="checkbox"/>	See our comment to question number 2.
Response: Please see the response to your comment on question #2.			
Dynegy	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>Yes, we agree with the concept that the methodology used to establish Equipment Ratings of the Facility should be consistent with one or more commonly accepted industry Equipment Rating standards or practices. However, we recommend the following specific changes be made to the related provisions of the standard:</p> <p>1.R1.1-The phrase "..for each component.." should be replaced with "..for components..". It should not be necessary to document the assumptions,criteria and methods (R1.2) used to rate each and every component of the Facility if it is obvious which piece of Equipment is the most limiting. For example, if the Facility is comprised of a 1500 amp transformer, a 1200 amp breaker, a 1200 amp bus and a 800 amp switch, you should only have to document the standards and practices used to rate the 800 amp switch.</p> <p>2. Footnote to R1.1-This footnote is too prescriptive for stating what constitutes an</p>

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Question #6			
Commenter	Yes	No	Comment
			accepted industry Equipment Rating standard or practice. The footnote should be deleted. Alternatively, if this footnote is not deleted, it needs to be expanded to include a reference to generator testing since annual testing of the generator capability demonstrates that there are no other limiting elements between the generator and the grid. Therefore, in this case, the wording at the end of the footnote should be expanded to read as follows: "...Distribution Handbook, MW capability testing of generators in accordance with NERC Reliability Standards, or other similar document."
<p>Response: The suggestion to change the term, 'component' was modified and now reads, 'Equipment that comprises the Facility' Most stakeholders seemed to support the language in the footnote so it was not deleted. Note that the drafting team subdivided the requirement to have a Facility Rating methodology so that the criteria for the generator unit Facility Rating methodology is in a separate requirement to have a Facility Rating methodology for all other Facilities. The revised requirement should result in a methodology that produces better data without requiring the investment of additional resources just to document the methodology and does allow the use of testing accompanied by engineering analysis.</p>			
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		Please see comments on Q.5
<p>Response: Please see the response to your comment on Question 5.</p>			
CPS Energy	<input checked="" type="checkbox"/>		So long as the list in the footnote is not considered to be exhaustive.
<p>Response: Agree. The list in the footnote is not considered exhaustive.</p>			
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		It should however be noted that the list of "accepted industry equipment rating standards" contained in the foot note is not exhaustive - guidelines from regional organizations are excluded.
<p>Response: The intent of the modifications to this standard is to ensure that all facility owners are following sound technical practices in establishing facility ratings. If the regional guidelines are consistent with IEEE, CIGRE or other industry standards, then there shouldn't be a need to modify those practices but there is a need to document that the regional practice does have a sound technical basis by identifying the industry standard that is being used.</p>			
Relay Loadability SDT	<input checked="" type="checkbox"/>		As long as this includes Ratings developed via other NERC Reliability Standards
<p>Response: A NERC published standard would meet the criteria for this requirement.</p>			
Bandera Electric	<input checked="" type="checkbox"/>		I agree with this change as long as it is recognized that those items placed in the footnote

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Question #6			
Commenter	Yes	No	Comment
Cooperative, Inc.			are not to be considered all inclusive.
Response: Agree. The list in the footnote is not considered exhaustive.			
We Energies	<input checked="" type="checkbox"/>		<p>In addition to the items listed in footnote 1, an "industry equipment rating standard or practice" can also be based on the following:</p> <ul style="list-style-type: none"> test report manufacturers calculations or documents IEEE Guides IEEE Recommended Practices IEEE Transaction papers (Power Delivery, Industry Applications) ABB Switchgear Manual National Electrical Code (NFPA 70) EPRI publications (e.g. Power Plant and Transmission Line reference books) Insulated Cable Engineers Association (ICEA) technical documents
Response: Each of these is really an expansion of the list already provided in the footnote 1.			
Ameren	<input checked="" type="checkbox"/>		<p>If the intent of the revision is to allow local ratings practices based on applicable national publications, we would agree with the changes. However, we are concerned that the term "consistency" will be interpreted as "conforming", which would result in the industry throwing away internally developed computer rating programs that are more than adequate and having to replace these programs with so called "standard programs" that may result in a rating change of only a few amperes. The benefits to the industry may not be worth the time and effort to tweak ratings so as to be "consistent" with the national or so called industry standards.</p>
Response: The term 'consistent with' was purposely chosen to differentiate from 'conforming.'			
AEP	<input checked="" type="checkbox"/>		
PSC of South Carolina	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		

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Question #6			
Commenter	Yes	No	Comment
ISO-NE	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Florida Power & Light Co.	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Florida Reliability Coordinating Council	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		

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7. The requesters considered whether to include a requirement, as proposed by FERC, to identify the limiting component(s) and define for all critical facilities the increase in rating based on the next limiting component(s) but did not add such a requirement because the reliability-related need for such a requirement is not apparent. Are you aware of any reliability-related need for the proposed requirement that would warrant the inclusion of this requirement into the standard?

Summary Consideration: Most commenters indicated they could not identify a reliability-related need to add a requirement to identify the limiting component(s) and define for all critical facilities the increase in rating based on the next limiting component(s). This shall serve as a single response to all comments except those comments from the entity supporting this modification. (Note that following this posting, FERC issued Order 693 and included a directive similar to the one identified above.)

Question #7			
Commenter	Yes	No	Comment
Relay Loadability SDT	<input checked="" type="checkbox"/>		For use of the Facility Ratings in real-time operations, ratings may have varying practical time-response. One rating for a specific duration may, in reality, have a 15-minute response time (such as thermal, and another higher rating may have an immediate response, such as relay loadability. The 15-minute response time would give the operators 15 minutes before the equipment itself is damaged or otherwise responds to an overload, while, for example, if a relay loadability limit is exceeded, the system will immediately respond (in a matter of cycles). The TO's, RC's, and other real-time operators should have this information available to them.
Response: A proper methodology should capture this information.			
APPA		<input checked="" type="checkbox"/>	In fact, what is recommended by FERC appears to degrade reliability.
Progress Energy		<input checked="" type="checkbox"/>	This information only comes up when working on uprating a line. It rarely comes into play during the operation of a line.
Baltimore Gas & Electric		<input checked="" type="checkbox"/>	Certifying that facility ratings do not exceed the rating of the most limiting component per section R1.3 should suffice from a reliability perspective.
ISO-NE		<input checked="" type="checkbox"/>	It is not clear how a more reliable system would result from this additional information.
ISO/RTO Council IESO		<input checked="" type="checkbox"/>	We agree that the reliability-related need for the proposed requirement is not apparent.
SERC EC Planning Stds Subcommittee		<input checked="" type="checkbox"/>	There is no reliability need for this information. The definition of rating is clear. It is the capability of the most limiting series element.

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Question #7			
Commenter	Yes	No	Comment
ERCOT		<input checked="" type="checkbox"/>	This is confusing. I can't tell whether it is trying to address the accuracy of the limit or whether it is trying to hint at a method of analysis to predict cascading. In either case, I think the underlying understanding would not be correct.
Hydro Québec TransÉnergie		<input checked="" type="checkbox"/>	Provision of the additional information will not contribute to reliability. It will only result in production of more information. It is not clear how a more reliable system would result from this additional information.
Pepco Holdings Inc., Affiliates		<input checked="" type="checkbox"/>	While it is a good practice for each individual company to capture this information and it would likely be useful from a Planning perspective, from an Operating perspective, there is no reliability-related need for this information to be included in the standard.
Salt River Project		<input checked="" type="checkbox"/>	See comments to #2.
ITC Transmission		<input checked="" type="checkbox"/>	We feel that providing a rating is sufficient. To provide the "next limiting" element may prove to be misleading, since the next limiting element may be an inexpensive piece of terminal equipment, but the multi-million dollar upgrade may only be a few amps behind it.
Pacific Gas & Electric Company		<input checked="" type="checkbox"/>	The reliability purpose is served when the Facility Rating equals the rating of the most limiting element. Consideration of the potential increase in rating based on the next limiting component is part of the economic evaluation of alternatives when developing a specific transmission project or upgrade, and should not be confused with the requirement for reliability.
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We are not aware of any reliability-related need to include the inclusion of this requirement. The FERC comment in the NOPR does have meaning in the context of transfer capability, not in the context of these standards.
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	We agree with the requesters position and would need more information to determine the validity or purpose of such a requirement.
New York ISO		<input checked="" type="checkbox"/>	It is not clear that any additional reliability would be gained with this additional requirement.
Dynegy		<input checked="" type="checkbox"/>	The proposed requirement is ambiguous, and the additional work required to identify the increase in rating based on the next limiting component(s) is unwarranted and potentially costly. Further, the need for this type of specific information is questionable. The criteria to be used to determine which facilities constitute "critical facilities" is not delineated, nor is "limit" defined. Information about the increase in rating based on the next limiting component(s) is not useful without the associated cost to remove the initial

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Question #7			
Commenter	Yes	No	Comment
			limit. There is neither a reliability need or a global need for this type of information. For these reasons, this type of information should be requested on a case-by-case basis rather than including a global requirement in the standards.
NPCC CP9 Reliability Standards WG		<input checked="" type="checkbox"/>	It is not clear how a more reliable system would result from this additional information. In addition this would represent an excessive burden for the industry with no perceived immediate lasting benefit. In the northeast, over the course of dealing with open access markets, congestion and difficulty with building new transmission, all the easy "fixes" that could be done to raise ratings through the replacement of minor equipment such as wave traps, CTs etc. has been done. Further analysis in this regard would yield little benefit and NPCC Participating members suggest not including this requirement.
Ameren		<input checked="" type="checkbox"/>	There is no reliability need for this information. The definition of rating is clear. It is the capability of the most limiting series element.
AEP		<input checked="" type="checkbox"/>	
CPS Energy		<input checked="" type="checkbox"/>	
Xcel Energy		<input checked="" type="checkbox"/>	
PSC of South Carolina		<input checked="" type="checkbox"/>	
BPA		<input checked="" type="checkbox"/>	
Kansas City Power & Light		<input checked="" type="checkbox"/>	
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	
Florida Power & Light Co.		<input checked="" type="checkbox"/>	
We Energies		<input checked="" type="checkbox"/>	
American Transmission Co. LLC		<input checked="" type="checkbox"/>	

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8. In FAC-008-2, is the role of the planning authority clear or does the responsibility of the Planning Authority in FAC-008-2 need additional clarification?

Summary Consideration: Most commenters indicated that the role of the planning authority, with respect to FAC-008-2, does not need clarification. (Note that following the posting of this standard, the Standards Committee directed drafting teams to begin using the terminology from the Functional Model, Version 3 – which replaces ‘Planning Authority’ with ‘Planning Coordinator’ – and this change is reflected in the revised standard.)

Question #8			
Commenter	Yes	No	Comment
APPA		<input checked="" type="checkbox"/>	The Planning Authority is not any different than the Transmission Operator. In fact the Standard should require the Applicable Functions to post facility ratings and the assumptions use for access by any interested function. It is correct that PA, TOP, TP and so on will have the most interest. Why should the SAR limit this information to just these reliability functions? In fact, the Facility Ratings should be made available to all functions, if needed. They should not be limited to TOP, TP, RC, PA.
<p>Response: The standard does not require any posting of facility ratings and assumptions. The standard is focused on reliability – and the recipients are limited to those entities that have a reliability-related need for the facility limits.</p>			
IESO		<input checked="" type="checkbox"/>	The Planning Authority is not assigned any responsibilities in this standard. We wonder what responsibility of the PA needs additional clarification.
<p>Response: The Planning Authority (now called the Planning Coordinator) is a requestor of the information and can submit comments on the methodology, but does not have any assigned requirements. This question was asked for a stakeholder who had submitted a SAR asking that the role of the Planning Authority be clarified in a list of standards, including this standard.</p>			
ITC Transmission		<input checked="" type="checkbox"/>	The role of the Planning Authority needs clarification. See comment/answer 15.
<p>Response: Please see the response to comment on question 15.</p>			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	There are no requirements on a planning authority in these standards so this question is irrelevant and mis-leading. However, we believe the requirements on the Transmission Owner and the Generation Owner are reasonably clear with the exceptions noted in these comments.
<p>Response: The Planning Authority (now called the Planning Coordinator) is a requestor of the information and can submit comments on the methodology, but does not have any assigned requirements. This question was asked for a stakeholder who had submitted a SAR asking that the role of the Planning Authority be clarified in a list of standards, including this standard.</p>			

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Question #8			
Commenter	Yes	No	Comment
American Transmission Co. LLC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	The question seems out-of-place because the Planning Authority is not listed in the Applicability Section of the Standard. It's clear that the Planning Authority is allowed to review and comment on the methodology but any recommendations do not have to be implemented. The SAR's SDT should provide additional context to the question?
Response: Agreed - The Planning Authority (now called the Planning Coordinator) is a requestor of the information and can submit comments on the methodology, but does not have any assigned requirements. A stakeholder had previously submitted a SAR asking that the role of the Planning Authority be clarified in a list of standards, including this standard.			
ISO/RTO Council	<input checked="" type="checkbox"/>		The Planning Authority is not assigned any responsibilities in this standard. We wonder what responsibility of the PA needs additional clarification.
Response: agreed - The Planning Authority (now called the Planning Coordinator) is a requestor of the information and can submit comments on the methodology, but does not have any assigned requirements. This question was asked for a stakeholder who had submitted a SAR asking that the role of the Planning Authority be clarified in a list of standards, including this standard.			
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		We are not sure why this question is asked. Our reading of the proposed standard would indicate that there is no responsibility for the planning authority, other than requesting and receiving ratings and ratings methodology information.
Response: The Planning Authority (now called the Planning Coordinator) is a requestor of the information and can submit comments on the methodology, but does not have any assigned requirements. This question was asked for a stakeholder who had submitted a SAR asking that the role of the Planning Authority be clarified in a list of standards, including this standard.			
Ameren	<input checked="" type="checkbox"/>		We are not sure why this question is asked. Our reading of the proposed standard would indicate that there is no responsibility for the planning authority, other than requesting and receiving ratings and ratings methodology information. This standard is not directed to the planning authority.
Response: The Planning Authority (now called the Planning Coordinator) is a requestor of the information and can submit comments on the methodology, but does not have any assigned requirements. This question was asked for a stakeholder who had submitted a SAR asking that the role of the Planning Authority be clarified in a list of standards, including this standard.			
PSC of South Carolina	<input checked="" type="checkbox"/>		
BPA	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power &	<input checked="" type="checkbox"/>		

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Question #8			
Commenter	Yes	No	Comment
Light			
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
CPS Energy	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		

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9. The versions of FAC-008 and FAC-009 that were approved in 2006 did not include violation risk factors or mitigation time horizons. The requesters transferred the violation risk factors developed by the Violation Risk Factors Drafting Team into the new standards and added Mitigation Time Horizons. Do you agree with the Mitigation Time Horizon for each requirement in the proposed standard? If not, please identify any requirement with a time horizon you feel is incorrect.

Summary Consideration: While many commenters did agree with the proposed Mitigation Time Horizons (now called Time Horizons) there were several suggestions to provide additional time horizons for the requirements to provide Facility Ratings to reflect that Facility Ratings may be provided over a variety of time periods. For the requirements to have and provide Facility Ratings, the drafting team modified the Time Horizons by adding 'Operations Planning' and 'Same-day Operations' to 'Real-time Operations'.

Question #9			
Commenter	Agree	Do not agree	Comment
APPA		<input checked="" type="checkbox"/>	<p>At this time FERC is requiring the Violation Risk Factors to be removed from the Standards process and placed in the Compliance Section of the process. It is recommended that SDT should VRF. It will be easier for the industry to deal with the requirements, Measurement, and so-on the first pass.</p> <p>It is unclear from the Sanction Guidelines how the Mitigation Time Horizons play in developing sanctions for non-compliance or contribute to the reliability of the BES. What value will they be to the industry? Until it is made clear their purpose they should be omitted on the first draft.</p>
<p>Response: NERC did file a request for interpretation or a rehearing on the matter of the determination of Violation Risk Factors – but FERC has not responded to that request, and until there is a response with a final ruling, NERC will continue to develop the Violation Risk Factors as part of the standards development procedure.</p> <p>Requirements that must be mitigated in real-time operations would have a larger sanction than those that could be mitigated over a longer time period.</p>			
Southern Company Services		<input checked="" type="checkbox"/>	<p>R4 and R5: The mitigation time horizon for R4 and R5 is stated as Real-time Operations. While this may apply to establishment or changing of transmission system operating limits to ensure facility and equipment ratings are not violated in real time, this does not apply to the facility ratings themselves, which are not subject to frequent change. For example, change to a generation facility rating typically involves engineering study and major equipment changes. While a generating unit's</p>

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Question #9			
Commenter	Agree	Do not agree	Comment
			operational capability in real time can be impacted by equipment problems and should be reported to the Transmission Operator, such temporary conditions should not be treated as a change in the facility rating. Such temporary changes in generating unit capability are addressed in TOP-002-2 Normal Operations Planning - requirement R14. A more appropriate mitigation time horizon for establishment and changes to facility ratings for generating plants would be Long Term Planning. In addition, Footnote 2 should be revised to delete the term real-time operations. Finally, we do not agree that Mitigation Time Horizons should play a role in the penalty assessments independently from the violation risk factors. Currently, the violation risk factors already take into account whether a standard is real time or planning. The violation risk factors were assigned a rating primarily using the time horizon and, to consider a time horizon a second time in the penalty assessment, is not appropriate.
<p>Response: The time horizons for what had been R4 and R5 (now R5 and R6 in the revised standard) were both changed to reflect that the Facility Ratings may be updated on a periodic basis – the revised time horizons for both requirements can be: Operations Planning, Same-day Operations, or Real-time Operations.</p> <p>Long-term planning is for a time horizon longer than a year.</p>			
ISO/RTO Council		<input checked="" type="checkbox"/>	No. These facility ratings may be used directly as SOLs. However, there is a standard for SOLs. SOLs would be used in the operations planning horizon. All mitigation time horizons should be long-term planning.
<p>Response: The time horizons for what had been R4 and R5 (now R5 and R6 in the revised standard) were both changed to reflect that the Facility Ratings may be updated on a periodic basis – the revised time horizons for both requirements can be: Operations Planning, Same-day Operations, or Real-time Operations.</p>			
SERC EC Planning Stds Subcommittee		<input checked="" type="checkbox"/>	The Mitigation Time Horizon for R4 should be Operations Planning.
<p>Response: Operations Planning has been added as a possible time horizon for R4 along with Same-day Operations and Real-time Operations.</p>			
NPCC CP9 Reliability Standards WG Hydro Québec TransÉnergie		<input checked="" type="checkbox"/>	NPCC participating members (Hydro Québec TransÉnergie) (New York ISO) (ISO-NE) believe that the mitigation time horizon should be Long term Planning since the methodology and the evaluation of the rating would generally be done ahead of the Operations Planning.

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Question #9			
Commenter	Agree	Do not agree	Comment
New York ISO ISO-New England			
Response: The time horizon was modified as suggested to 'long-term planning'.			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	The MTH for R1 through R5, and all of their subparts, should be - Long-Term Planning. We believe all methodologies, the determination of ratings, and the provision of those ratings to all appropriate entities should be a Long-term Planning issue, not an Operations Planning nor Real-Time Operations issue.
Response: The time horizon for the requirements associated with having a documented methodology were modified as suggested to 'long-term planning'. However, the requirements to make the methodology available for inspection and to respond to technical comments on the methodology were not changed, as these are not performed in the long-term planning period. The time horizons for the requirements to have and provide facility ratings were modified to allow a range of time horizons – and now include, 'Operations Planning, Same-day Operations, Real-time Operations'			
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	SAR Purpose item #4 states "Bring the standards into conformance with the latest version of the Reliability Standards Development Procedure...". The SAR and draft changes include the addition of (Mitigation Time Horizons (MTHs)) and (Violation Severity Levels, Lower, Moderate, High and Severe). The MTHs and definitions for VSLs are not part of the Reliability Standards Development Procedure version #6 or proposed version #7 currently being developed. The draft changes also include (Violation Risk Factors (VRFs)) which are being removed from the standards procedure in version #7. Amend the Reliability Standards Development Procedure so it is consistent with the drafts being developed. THIS IS CRUCIAL TO THE CREDIBILITY OF THE PROCESS.
Response: The latest version of the Reliability Standards Development Procedure did not include time horizons – this was an omission in bringing the manual into conformance with the latest ERO Rules of Procedure and this omission should be corrected with the next normal revision to the manual. In the meantime, stakeholders will be asked to comment on and approve time horizons as they are developed with standards. The alternative is to have these time horizons identified outside the standard development process, and stakeholders indicated they wanted a voice in the selection of all the compliance elements within standards. The standards staff drafted the definitions used to distinguish Violation Severity Levels and sought feedback on the appropriateness of their use from the Certification and Compliance Committee and the Standards Committee in December, 2006. Both committees endorsed their use as 'guidelines' to help drafting teams bring a more uniform approach to the			

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Question #9			
Commenter	Agree	Do not agree	Comment
determination of Violation Severity Levels. The drafting teams make only the initial proposal for violation severity levels – these are posted for comment and stakeholders through their comments and then through the ballot process make the final determination on appropriate Violation Severity Levels.			
Dynegy		<input checked="" type="checkbox"/>	<p>The SDT should explain the rationale for how it arrived at the Mitigation Time Horizons included in the standard. We believe that the appropriate time horizon for mitigating a violation to the Requirements in this standard associated with Facility Ratings is "Long-term Planning- a planning horizon of one year or longer."</p> <p>R1-R3 pertain to the development and sharing of an entity's Facility Ratings methodology. Assigning an "Operations Planning" horizon that relates to "operating and resource plans from day ahead up to and including seasonal" is inappropriate for a planning oriented methodology.</p> <p>R4-R5 pertain to establishing and sharing the actual Facility Ratings. Assigning a "Real-time Operations" horizon that relates to "actions required within one hour or less to preserve the reliability of the bulk power system" is very inappropriate for planning oriented ratings.</p>
<p>Response: The time horizon for the requirements associated with having a documented methodology were modified as suggested to 'long-term planning'. However, the requirements to make the methodology available for inspection and to respond to technical comments on the methodology were not changed, as these are not performed in the long-term planning period. The time horizons for the requirements to have and provide facility ratings were modified to allow a range of time horizons – and now include, 'Operations Planning, Same-day Operations, Real-time Operations'</p>			
Ameren	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>We would agree with the mitigation time horizon to verify a rating within an hour is acceptable. We would not agree to validate the rating methodology within this same time period. The mitigation time horizon to validate should be in the operations planning horizon. Mitigation time horizons for requesting and receiving information on existing facilities in the operations planning horizon is acceptable. Mitigation time horizons for requesting information on future facilities (new facilities to be completed in the planning horizon) should not be "Real-time Operations". Perhaps a separate category should be included for the future or new facilities that are yet to be built rather than include them as part of R5/M5.</p>
<p>Response: The requirement that allows a recipient of a Facility Rating to question the facility owner's methodology – and the requirement for the facility owner to respond to that question both have a Time Horizon of Operations Planning as suggested.</p>			

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Question #9			
Commenter	Agree	Do not agree	Comment
<p>Several stakeholders indicated that Facility Ratings may be provided over a range of times, and the requirements for Facility Owners to have and provide Facility Ratings were both modified to be: Operations Planning, Same-day Operations, or Real-time Operations. This should address your concern about Facility Ratings that may be requested in advance of installation – Operations Planning includes time up to a year.</p>			
PSC of South Carolina	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ITC Transmission	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
American Transmission Co. LLC	<input checked="" type="checkbox"/>		

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10. The requesters modified the measures to provide examples of what could be considered as “evidence.” Do you agree with the modifications made to the measures to provide examples of evidence?

Summary Consideration: Most commenters agreed with the measures in the proposed standard.

Question #10			
Commenter	Agree	Do not agree	Comment
APPA		<input checked="" type="checkbox"/>	<p>The measurements are not measurements but another requirement or just a repeat of the requirement. The Measure must detail how the Compliance Monitor will measure the requirement. Example: "M1 The Compliance Monitor shall be able to access the Transmission Owner's and Generator Owner's documented (electronically or paper) Facility Ratings Methodology that includes all of the items identified in Requirement 1.1 through Requirement 1.4"</p> <p>R1 already requires the documented Facility Rating Methodology to contain 1.1 to 1.4. M1 should be telling the Applicable Function that it will need to provide the Compliance Authority the information required in R1 in a digital form, written form, or on a OASIS, not just repeat the requirement.</p> <p>All of the other measurements should be written in the same format.</p>
<p>Response: Most commenters agreed with the measures as proposed. The measure should identify 'how' the entity will demonstrate compliance and doesn't necessarily go into the details of what the compliance monitor will do.</p>			
Florida Power & Light Co.		<input checked="" type="checkbox"/>	<p>FAC-008-2 M4 states the Owners shall be able to demonstrate its ratings are consistent with the methodology document. The term "demonstrate" may be subjective in the eyes of the compliance auditor. It is preferable to replace "demonstrate" with "provide evidence."</p>
<p>Response: The word 'demonstrate' was intended to allow an entity to use 'show and tell' rather than having to produce numerous documents that were developed solely to make the compliance monitor's job more efficient. The drafting team added 'or shall have evidence to show' to provide additional options.</p>			
ITC Transmission		<input checked="" type="checkbox"/>	<p>"Other comparable evidence" is ambiguous, especially since the only other offered example of sufficient evidence is a dated electronic note. The measurement could be expanded to offer a few other examples of sufficient evidence, such as operator</p>

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Question #10			
Commenter	Agree	Do not agree	Comment
			logs, written communications, documentation of a phone call, etc.
<p>Response: This phrase was developed by the Missing Measures and Compliance Elements SDT for use in standards and the use of this phrase in measures has stakeholder consensus. The intent is not to provide all available options but to provide a couple samples.</p>			
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	<p>M2 and M3, not clear on how to measure a GOs and TOs compliance with the measure if a request is never initiated (is it the intention for the RE monitor to initiate the request and therefore generate the evidence?).</p> <p>In M4, the term "document" would be more appropriate than "demonstrate" in its application to this measure.</p>
<p>Response: If a request is never initiated, then there is no measure of compliance. This is one of the requirements that may be assessed on a spot check or triggered investigation.</p> <p>The standard was modified to allow either document or demonstrate.</p>			
American Transmission Co. LLC	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<p>ATC does not disagree with the examples as long as it's understood that evidence of compliance is not limited to those examples. Would the SDT agree with ATC that evidence can be anything that shows compliance and should never be limited to the examples given in the Measures?</p>
<p>Response: Yes. This is the understanding.</p>			
PSC of South Carolina	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		

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Question # 10			
Commenter	Agree	Do not agree	Comment
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
Entergy Services, Inc.	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
Ameren	<input checked="" type="checkbox"/>		

11. The latest version of the *Reliability Standards Development Procedure* requires that each standard include “violation severity levels” rather than “levels of non-compliance.” “Violation severity levels” identify how badly an entity violated each requirement, and are not linked to the reliability-related impact of violating a requirement. (The reliability-related impact of violating a requirement is now identified in the “Violation Risk Factor” appended to each requirement.) Do you agree with the Violation Severity Levels for each of the proposed standards? If you disagree with any of the Violation Severity Levels for the proposed standards, please identify the standard and requirement you feel has an incorrect Violation Severity Level.

Summary Consideration: (Answered by Compliance Elements Drafting Team) While most commenters agreed with the proposed severity levels, an issue with providing the Facility Ratings methodology was considered and modified by the CEDT. Severity levels were changed to give a graduated severity level ranging from a few days late being a lower severity to providing it two months later, or not providing it at all, to be a severe violation.

Question #11			
Commenter	Agree	Do not agree	Comment
Kansas City Power & Light		<input checked="" type="checkbox"/>	1.4.1 should not contain the language "or the Facility Ratings Methodology was not made available for inspection within 15 business days of receipt of a request". It is not appropriate for this administrative requirement to be considered a Severe impact of the not meeting the requirements. This could be included as one of the items in the Lower severity.
<p>Response: The Compliance Elements Drafting Team (CEDT) agrees with the commenter. The CEDT modified the severity levels so that methodologies provided sent 22-28 calendar days after the request are lower severity, 29-42 calendar days after the request a medium severity, 43-56 calendar days after the request a higher severity, and if not sent, or sent 57 days after the request, a severe violation.</p>			
Southern Company Services		<input checked="" type="checkbox"/>	2.4.1 - Refusal to provide one's Facility Ratings Method may be worthy of a Severe Violation. Failure to provide this information in 15 days is not. Failure to meet the 15 day time requirement should be a lower level violation. 2.3.2 - Minor inconsistencies between facility ratings and the documented methodology may occur and would not be worthy of a High level Violation. This level should be reserved for cases where there are gross differences or inconsistencies that could impact reliability.
<p>Response: 2.4.1 - The Compliance Elements Drafting Team (CEDT) agrees with the commenter. The CDT modified the severity levels so that methodologies provided sent 22-28 calendar days after the request are lower severity, 29-42 calendar days after the</p>			

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Question #11			
Commenter	Agree	Do not agree	Comment
<p>request a medium severity, 43-56 calendar days after the request a higher severity, and if not sent, or sent 57 days after the request, a severe violation.</p> <p>2.3.2 - While the CEDT understands your point of view, given the fact that most commenters agreed with the severity level or were split on making it higher or lower, the CEDT is leaving the severity level as is.</p>			
ISO/RTO Council IESO		<input checked="" type="checkbox"/>	<p>We find the violation severity levels when the Facility Ratings Methodology does not address one, two and three of the required equipment types identified in FAC-008 R1.4.1 very difficult to follow. Perhaps the requirement is unclear, as presented below.</p> <p>Excerpt from the draft standard: R1.4 The method by which the Rating (of major bulk power system equipment that comprises a Facility) is determined.</p> <p>R1.4.1 The scope of equipment addressed shall include, but not be limited to, generators, transmission conductors, transformers, relay protective devices, terminal equipment, series and shunt compensation devices. Does it mean the scope needs to address all of these equipment? If so, then the violation severity level would work. But if that's the case, how could a Generator Owner's scope of equipment address transmission conductors, or a Transmission Owner's scope address generators?</p> <p>We therefore speculate that the scope needs to address only the equipment that is relevant to the entity. But if that's the case, Generator Owners and Transmission Owners would bound to be in violation of the requirement as indicated by one of the three violation severity levels in Sections 2.1.2, 2.2.2 and 2.3.1.</p> <p>Please clarify the understanding, and as needed revise the requirements and/or the violation severity levels.</p>
<p>Response: Requirements for generators to rate their generating unit facilities were moved to R1. All other facilities that might be owned by the Generator Owner or Transmission Owner are addressed in R2.</p>			
ITC Transmission		<input checked="" type="checkbox"/>	<p>If the stated purpose of this Reliability Standard is to "ensure that Facility Ratings ... are determined based on technically sound principles," then I would argue that the worst thing you could to violate the Standard would be to develop Facility Ratings that are not consistent with the methodology. Therefore, Severity Level 1.3.2 seems it should warrant the most severe of levels.</p>

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Question #11			
Commenter	Agree	Do not agree	Comment
			<p>Similarly, not making the methodology available for inspection within 15 days hardly seems to be a severe violation of the purpose of the standard, and thus the second half of 1.4.1 warrants a much lower severity level (recommend: low).</p> <p>Severity Level 1.3.1 should say "Three or more."</p>
<p>Response: While the Compliance Drafting Team (CEDT) understands your point of view, given the fact that most commentors agreed with the severity level or were split on making it higher or lower, the CEDT is leaving the severity level as is.</p> <p>The CEDT agrees with the commenter. The CEDT modified the severity levels so that methodologies provided sent 22-28 calendar days after the request are lower severity, 29-42 calendar days after the request a medium severity, 43-56 calendar days after the request a higher severity, and if not sent, or sent 57 days after the request, a severe violation.</p> <p>Agreed. The severity level in 2.3.1 has been changed to read "three or more".</p>			
CPS Energy		<input checked="" type="checkbox"/>	<p>In 2.3.2, I do not agree that Facility Ratings that were not developed consistent with the Facility Ratings Methodology and which are lower, or more conservative, than the correctly derived rating present a reliability risk at all. This certainly should not result in a Violation Severity Level of "High".</p>
<p>Response: While the CEDT understands your point of view, given the fact that most commentors agreed with the severity level or were split on making it higher or lower, the CEDT is leaving the severity level as is.</p>			
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	<p>See response to question #9.</p>
<p>Response: The standards staff drafted the definitions used to distinguish Violation Severity Levels and sought feedback on the appropriateness of their use from the Certification and Compliance Committee and the Standards Committee in December, 2006. Both committees endorsed their use as 'guidelines' to help drafting teams bring a more uniform approach to the determination of Violation Severity Levels. The drafting teams make only the initial proposal for violation severity levels – these are posted for comment and stakeholders through their comments and then through the ballot process make the final determination on appropriate Violation Severity Levels.</p>			
Dynegy		<input checked="" type="checkbox"/>	<p>The reference in Violation Severity Levels 2.1.2, 2.2.1 and 2.3.1 which bases violations on "The Facility Ratings Methodology not addressing one, two or three of the required equipment types identified in FAC-008, R1.4.1" should be deleted.</p>

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Question #11			
Commenter	Agree	Do not agree	Comment
			<p>Many Facilities, such the Facility connecting generators to the grid, may simply not contain one or more of these equipment types. The Facility Ratings Methodology should describe the method used to rate the Equipment in its Facilities.</p> <p>The "Severe" Violation provisions of 2.4 are not consistent with Violation provisions of 2.1, 2.2 and 2.3. The provisions of 2.4.1 and 2.4.2 are largely administrative and pertain to the sharing of the Facility Ratings Methodology or the Facility Ratings themselves with others and are similar to the provisions of 2.1 and 2.2.</p> <p>Section 2.4 should be revised to include 2.1.1, 2.3.2 and the portion of 2.4.1 which states that "The Facility Ratings Methodology does not address both Normal and Emergency Ratings.."</p>
<p>Response: Requirements for generators to rate their generating unit facilities were moved to R1 All other facilities that might be owned by the Generator Owner or Transmission Owner are addressed in R2.</p> <p>The Compliance Elements Drafting Team (CEDT) agrees with the commenter. The CEDT has modified the severity levels so that methodologies provided sent 22-28 calendar days after the request are lower severity, 29-42 calendar days after the request a medium severity, 43-56 calendar days after the request a higher severity, and if not sent, or sent 57 days after the request, a severe violation.</p> <p>As most commentors agreed with the proposed levels of non compliance, the CEDT has chosen to leave the remainder of the severity levels as they are.</p>			
Ameren		<input checked="" type="checkbox"/>	The violation risk factor for new facilities to be built in the planning horizon should be "lower". Perhaps a separate category should be included for the future or new facilities that are yet to be built rather than include them as part of R5/M5.
<p>Response: The SDT did not break out new facilities to be built on the planning horizon, so the CDT is leaving the severity level as is.</p>			
APPA	<input checked="" type="checkbox"/>		
PSC of South Carolina	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

Question #11			
Commenter	Agree	Do not agree	Comment
Progress Energy	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
AEP	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
Entergy Services, Inc.	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
American Transmission Co. LLC	<input checked="" type="checkbox"/>		

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12. Are you aware of any requirement in this standard that has an unnecessary adverse impact on energy markets? Please identify the requirement and its adverse impact here.

Summary Consideration: None of the commenters identified a specific requirement in the proposed standard that has an unnecessary adverse impact on energy markets.

Question #12			
Commenter	No unnecessary adverse impacts	Unnecessary adverse impacts	Comment
PSC of South Carolina		<input checked="" type="checkbox"/>	
Relay Loadability SDT		<input checked="" type="checkbox"/>	
APPA	<input checked="" type="checkbox"/>		The SDT should be concerned that the rules of reliability. That is, the rules of reliability will set the boundaries for the market. The rules of the market do not set the boundaries for reliable operations. The term "unnecessary" is vague and arbitrary.
Response: Agree. The first concern should be for reliability.			
AEP	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		

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Question # 12			
Commenter	No unnecessary adverse impacts	Unnecessary adverse impacts	Comment
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ITC Transmission	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
Entergy Services, Inc.	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
American Transmission Co. LLC	<input checked="" type="checkbox"/>		
Ameren	<input checked="" type="checkbox"/>		

Consideration of Comments on 1st Draft of the Reliability Coordination SAR

13. Are you aware of any conflicts between the proposed standard and any regulatory function, rule order, tariff, rate schedule, legislative requirement or agreement?

Summary Consideration: None of the commenters identified a conflict between the proposed standard and a regulatory function, rule order, tariff, rate schedule, legislative requirement or agreement.

Question #13			
Commenter	Unaware of existing conflict	Conflict exists	Comment
APPA		<input checked="" type="checkbox"/>	The Standard as written identifies the ERO as the Compliance Monitor. This is in contradiction to the Standard Development Procedures and Sanction Guidelines. The Regional Entity will be the Compliance Monitor for entities with facilities within its footprint.
Response: Agree. The standard was modified to replace ERO with RE.			
Southern Company Services		<input checked="" type="checkbox"/>	See our response to Question 6.
Response: Please see the response to your comment on Question 6.			
Florida Reliability Coordinating Council		<input checked="" type="checkbox"/>	Proposed removal of VRFs from Reliability Standards Development Procedure version #7.
Response: Since NERC has requested an interpretation and/or a rehearing on this matter, the issue of whether stakeholders will have a voice in determining VRFs through the Reliability Standards Development Procedure remains 'open'. Until there is a final resolution, drafting teams will continue to include VRFs in proposed standards.			
AEP	<input checked="" type="checkbox"/>		
PSC of South Carolina	<input checked="" type="checkbox"/>		
Progress Energy	<input checked="" type="checkbox"/>		
Kansas City Power & Light	<input checked="" type="checkbox"/>		
Baltimore Gas & Electric	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		

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Question # 13			
Commenter	Unaware of existing conflict	Conflict exists	Comment
Relay Loadability SDT	<input checked="" type="checkbox"/>		
SERC EC Planning Stds Subcommittee	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Bandera Electric Cooperative, Inc.	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
ITC Transmission	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
Entergy Services, Inc.	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		
American Transmission Co. LLC	<input checked="" type="checkbox"/>		
Ameren	<input checked="" type="checkbox"/>		

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14. The compliance monitoring information and data retention periods were modified by compliance personnel. Do you agree with these changes?

Summary Consideration: (Answered by the Compliance Elements Drafting Team) Commenters noted that there was no explanation given to explain the increase in the data retention period. The data retention period was increased due to the need to provide an auditable document trail that will fit the proposed audit period. Consequently, the retention period has been changed to the previous 5 years plus current.

Question #14			
Commenter	Yes	No	Comment
APPA		<input checked="" type="checkbox"/>	Clarification or follow-up on these points will be needed 1) Who are the compliance personnel, NERC or Regional Entities? 2) What is the defined term of Triggered Investigation? Not in glossary or new definitions. 3) The Compliance Monitoring Enforcement Program has been filed at FERC but has not been approved yet.
<p>Response: The compliance monitor was changed from the ERO to the RE in the response to a previous comment.</p> <p>The phrase 'Triggered Investigations' was intended to mean any investigation that might have been initiated by a complaint, event, or other stimulus. It has been replaced by 'Investigation' in the standard.</p> <p>The Compliance Monitoring Enforcement Program (CMEP) is expected to be approved in some form. Methods included in the approved CMEP may also be used to monitor compliance.</p>			
Progress Energy		<input checked="" type="checkbox"/>	No justification was given for the extension to 5 years. Three years seems to be sufficient. Just recently in the new PRC-023 Relay Loadability standard NERC proposed that the TO,GO, DP, and Compliance Monitor maintain documentation related facility limiting protective relays for three years.
<p>Response: The proposed frequency of audits for these entities requires a previous 5 years plus current data retention policy.</p>			
Kansas City Power & Light		<input checked="" type="checkbox"/>	Compliance Monitoring Period and Reset: Unless a Transmission Owner or Generator owner can decline an audit, do not agree with the 5th bulleted item that says, "New Transmission Owners and Generator Owners shall each demonstrate compliance through an on-site audit conducted by the Compliance Monitor within the first year that it commences operation." Periodic audit should cover

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Question #14			
Commenter	Yes	No	Comment
			<p>this.</p> <p>This would be more appropriate if it were aimed at a Compliance Monitor to perform an on-site audit within one year of a Transmission Owner or Generator Owner becoming operational.</p>
Response: Agreed, and with the violation risk factors being as they are, this was removed.			
Baltimore Gas & Electric		<input checked="" type="checkbox"/>	The modifications are excessive. More so, the proposed modification to the requirement on superseded portions of the methodology in section 1.3 is inconsistent with the requirement in section 1.4.3.
Response: The inconsistency was noted and in section 1.4.3, a new item was added that the entity shall produce records from the previous 5 years if requested to do so by the compliance monitor.			
Ameren SERC EC Planning Stds Subcommittee		<input checked="" type="checkbox"/>	It is unreasonable to keep comments and associated responses for time periods (5 years) longer than is required to keep previous ratings methodology documents (3 years). The retention dates should be the same, so that the comments and the documents are easily linked.
Response: The proposed frequency of audits for these entities requires a previous 5 years plus current data retention policy.			
Bandera Electric Cooperative, Inc.		<input checked="" type="checkbox"/>	In D1.3, the requirement to keep comments on the Facility Ratings Methodology and associated responses for 5 years is excessive. I would recommend remaining at 3 years for all data retention.
Response: The proposed frequency of audits for these entities requires a previous 5 years plus current data retention policy.			
ITC Transmission		<input checked="" type="checkbox"/>	The intent of the 3 years versus the 5 years is not clear.
Response: The proposed frequency of audits for these entities requires a previous 5 years plus current data retention policy.			
Entergy Services, Inc.		<input checked="" type="checkbox"/>	We strongly suggest deleting the added phrase - Other methods as provided for in the Compliance Monitoring Enforcement Program -. Compliance Monitoring should be developed with industry approval and should not get open-ended approval through inclusion in a standard.
Response: The CEDT disagrees with this statement. Standards need to have the flexibility to be monitored through new means that are developed to handle the changes that a mandatory compliance program brings. Adding this statement allows for new methods to be introduced without having to seek re-approval of the entire standard.			
American		<input checked="" type="checkbox"/>	ATC does not agree with the extension of the data retention from 12 months to three

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Question #14			
Commenter	Yes	No	Comment
Transmission Co. LLC			years for Facility Ratings Methodology and from three years to five years for comments and response to comments. The additional years of data retention serve little purpose and only test a company's ability to store data that is no longer needed. We request that the original data retention time periods be restored.
Response: The proposed frequency of audits for these entities requires a previous 5 years plus current data retention policy.			
PSC of South Carolina	<input checked="" type="checkbox"/>		
ISO-NE	<input checked="" type="checkbox"/>		
ISO/RTO Council	<input checked="" type="checkbox"/>		
Relay Loadability SDT	<input checked="" type="checkbox"/>		
ERCOT	<input checked="" type="checkbox"/>		
IESO	<input checked="" type="checkbox"/>		
Hydro Québec TransÉnergie	<input checked="" type="checkbox"/>		
Pepco Holdings Inc., Affiliates	<input checked="" type="checkbox"/>		
Salt River Project	<input checked="" type="checkbox"/>		
Pacific Gas & Electric Company	<input checked="" type="checkbox"/>		
New York ISO	<input checked="" type="checkbox"/>		
Dynegy	<input checked="" type="checkbox"/>		
NPCC CP9 Reliability Standards WG	<input checked="" type="checkbox"/>		
We Energies	<input checked="" type="checkbox"/>		

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15.If you have any other comments on this set of standards or its implementation plan that you have not already submitted above, please provide them here.

Summary Consideration:

Question #15	
Commenter	Comment
APPA	To help the industry understand the impact of this Standard on each applicable function I would recommend the STD post the Sanction Table when the draft comes out showing the Violation Risk Factors and the Violation Severity Levels. Facility Ratings Methodology and Triggered Investigation are not new or existing terms. This should be defined or made lower case.
<p>Response: Posting the sanctions table is outside the scope of the drafting team.</p> <p>Facility Ratings Methodology was defined in R1. Triggered investigation is not a defined term and the capitalization was corrected.</p>	
BPA	Reword R1.4.2 to read "The scope of ratings addressed shall include, as a minimum, Normal Ratings, and where applicable, Emergency Ratings." Not Every facility may have an Emergency Rating, therefore an Emergency Rating Methodology should not be required for those that don't.
<p>Response: The standard does not preclude the emergency rating from being equal to the normal rating.</p>	
Progress Energy	Is there a relation created between this standard and MOD-024 or MOD-025?
<p>Response: There is no relation created between this standard and MOD-024 or MOD-025. However, the findings of complying with MOD-024 and MOD-025 could be an input to the Facility Ratings Methodology.</p>	
Baltimore Gas & Electric	Combining FAC-008 and FAC-009 is certainly the way to go. It goes a long way in eliminating redundancies and associated confussions that may result from interpretation of two separate standards attempting to address similar items.
<p>Response: Agreed.</p>	
ISO-NE Hydro Québec TransÉnergie	We believe that the applicability of this Standard to Transmission Owners should be limited to ratings for equipment that are elements of the Bulk Electric System. In A-3 "Purpose," we believe that the Bulk Electric System (BES) should remain and not be replaced by bulk power system since BES is defined in the NERC Glossary of Terms.

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<p>Response: This is reflected in the purpose. The term, 'bulk power system' was replaced with 'Bulk Electric System' in the SAR and Standard.</p>	
AESO	<p>The AESO participates in the joint comment submission with the Standards Review Committee (SRC) of the ISO/RTO Council (IRC), but would like to submit the following additional comments that are strictly applicable to the AESO:</p> <p>The AESO is undertaking a project to implement mandatory reliability standards in Alberta, Canada. This will include a review of the NERC standards for applicability, development of a standards review process and creation of a compliance monitoring and enforcement program. This project will determine how and when these and other NERC standards will be applied and enforced in Alberta.</p>
SERC EC Planning Stds Subcommittee	<ol style="list-style-type: none"> 1. The violation risk factor for R1 should be "lower." 2. Remove TP from the Reliability Functions section of the SAR on page SAR-3.
<p>Response: The Violation Risk Factor for R1 was changed to 'lower'. The Transmission Planner was removed from the applicability section of the SAR.</p>	
Bandera Electric Cooperative, Inc.	<p>I commend the work of the SAR drafting team in merging these two standards. Having only 1 standard to deal with equipment ratings will be more efficient and should work to streamline the compliance process.</p>
<p>Response: Thank you for your support.</p>	
Florida Power & Light Co.	<ol style="list-style-type: none"> 1. The definition of Facility is confusing and open to interpretation that may cause conflict between an auditor and the Transmission Owner. The NERC Glossary states "e.g., a line, a generator, a shunt compensator, transformer, etc." The word "etc" suggests there are other things required for inclusion. However it is left to the imagination. If other things need to be included the Standard should state them, otherwise the "etc" should be omitted. Additionally, it is not clear how a Facility differs from an Element since by definition a Facility "operates as a single Element" and some Elements are used as an example of a Facility. It would seem more appropriate that a Facility is a set of one or more Elements operated together. For example, a transmission line is comprised of conductors, switches, and breakers (Elements) connected in series to make up the Facility. The limiting Ratings of a Facility is determined by the most limiting Elements. But it is the Facility to which ratings are assigned and communicated. 2. R1.4.2 states "The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings." As worded this Requirement could be interpreted to mean each Equipment "Rating" shall include both Normal and Emergency Ratings. However it appears the intent of R1.4.2 is to address the "Methodology" rather than each individual Rating itself. It should be reworded to "The

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	<p>scope of the Ratings Methodology addressed." Additionally, many Elements or Facilities may not have Emergency Ratings above the Normal Ratings. Requirement R1.4.2 implies all Facilities must have an Emergency Rating otherwise a Severe Violation Level will be imposed under D2.4.1. This seems inappropriate since some Equipment shall not be operated above Normal Ratings.</p> <p>3. Jointly owned Facilities should be a defined term.</p> <p>4. Under D 1.2. it states "New Transmission Owners and Generation Owners." This should state "New Transmission Owners and new Generation Owners."</p>
<p>Response: The scope of the SAR adopted does not include making revisions to definitions. The standard does not preclude an entity from using a single rating for both normal and emergency ratings. Drafting teams do not define terms that use a common understanding and the term, 'jointly owned' does not have a unique definition. The proposed change to add the word, 'new' to Section D.1.2 was adopted and is reflected in the revised standard.</p>	
<p>ITC Transmission</p>	<p>The role of the Planning Authority in R3 of the revised Standard is flawed. The Standard essentially makes the Transmission/Generator Owner accountable to the Planning Authority Transmission Operator, Transmission Planner, and Reliability Coordinator for the development of the Facility Ratings Methodology.</p> <p>Requirement R2 requires the TO/GO to make the Ratings Methodology available to the RC, TOp, TP, and PA for inspection and review. Providing the methodology to those entities is good reliability practice, since they, in turn, will plan/operate the system. Requiring the TO/GO to provide a written response justifying its methodology whenever the RC/TOp/TP/PA disagrees with it is misguided.</p> <p>The TO/GO is accountable to the ERO to have a Facility Rating Methodology which is founded on solid technical principles. The TO/GO is given the authority to rate its facilities in accordance with the Reliability Standard, and the RC, TOp, TP, and PA are each given their respective authorities to plan and operate the system using those ratings. The TO/GO should not be required to continuously justify its methodology to anyone other than the entity responsible for ensuring the methodology meets the criteria set forth in the Reliability Standard (i.e., the ERO).</p>
<p>Response: The standard includes peer review as an option, not a requirement and this requirement applies equally to both the transmission owner and the generator owner. It isn't clear why the planning authority role is flawed – the planning authority would be able to review the methodologies and make comments on technical issues in those methodologies if desired. This is intended to improve peer review of the methodologies. The written response was designed to motivate entities to give serious consideration to these technical comments – the fact</p>	

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that the document exists and is 'discoverable' should provide additional motivation to research the validity of any technical comments received and make appropriate changes if needed.

The ERO does not proactively assess the technical viability of the methodology.

Pacific Gas & Electric Company

The standard should allow the Facility Owners to temporarily derate a piece of equipment during emergencies based on operating conditions and physical conditions of the equipment without following all the steps in the established methodology. The Facility Owner should also provide the reason for the derate.

If emergency ratings are mandatory then the term emergency rating should be better defined. There is currently a range of definitions depending upon which utility is determining the emergency rating. For example, the current definition implies, but does not specify, a relationship between "rating" and the "time period allowed". This generated a lot of confusion in the industry. This becomes a problem when there are multiple utilities that own different components of one transmission line path. The total path may appear to have an emergency rating higher than its actual rating because of the lack of a common definition or a mixture of definitions that do not have a common reference.

Either delete R.4 or expand it to include the case where there are multiple owners of components associated with one transmission line.

There are currently transmission lines where one utility owns the line, another utility owns the substation equipment at one end of the line, and a third utility owns the substation equipment at the other end of the line. This case does not involve joint ownership nor do any of the utilities use the same "Facility Rating Methodology".

In D.2 (Violation Severity Levels), reword 2.1.2 to read "The Facility Ratings Methodology does not address one of the required owned equipment types identified in FAC-008 R1.4.1.". Each of the equipment owners is responsible for their rating methodology. This change should also be made in 2.2.1 and 2.3.1.

Also in D.2, reword 2.4.1 to read "The Facility Ratings Methodology does not address both Normal and Emergency Ratings for any of the required equipment types identified in R1.4.1 or the Facility Ratings Methodology was not made available for inspection within 15 business days of receipt of a request." This would be more consistent with the lower severity levels and not make the lower severity levels in this category meaningless.

Response: Please see the revised footnote number 2 – this now clarifies that temporary de-ratings are acceptable.

The term, 'emergency rating' is a NERC defined term. (The rating as defined by the equipment owner that specifies the level

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of electrical loading or output, usually expressed in megawatts (MW) or Mvar or other appropriate units, that a system, facility, or element can support, produce, or withstand for a finite period. The rating assumes acceptable loss of equipment life or other physical or safety limitations for the equipment involved.) Modifications to the definition will require a new SAR.

If a Facility has Elements that have different owners, then there are multiple owners of that Facility – and it is a ‘jointly owned Facility’ under this standard.

The team understands the comments, but feels that if the entity does not own the type of equipment addressed in the various lists, it can easily address those by stating in the methodology Entity does not own equipment type X.

This was changed so that not supplying someone with the methodology would scale from a lower to a severe violation depending on how many days it was late.

<p>Florida Reliability Coordinating Council</p>	<p>Amend the Reliability Standards Development Procedure to provide a consistent framework for standards development instead of adding 10 pages of filler and background to each SAR and comment form that is being generated.</p> <p>We would suggest a technical conference with all stakeholders and regulators to develop a consistent Reliability Standards Development Procedure that addresses everyone's needs and perceptions and creates a consistent baseline understanding of the standards format prior to tasking the industry technical experts for their review and comments. This will expedite the industry's ability to respond to the EROs standard development process and timelines and is crucial to maintaining the credibility of the standards process.</p>
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Response: Anyone who feels that the Reliability Standards Development Procedure needs revision can submit a SAR that includes a description of the proposed change.

<p>NPCC CP9 Reliability Standards WG</p>	<p>There is an inconsistency in this standard.</p> <ul style="list-style-type: none"> - The FPA does not recognize the BPS; but applicability section refers to BES. What is the definition of "major" in R1.4. - In R1.1 should be consistent "within the framework" - Eliminate "impaired equipment" in footnote.
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Response: The term, ‘bulk power system’ was replaced with ‘Bulk Electric System’ in the SAR and Standard. The word, ‘major’ was removed from R1.4 as proposed. The team did not add the phrase, ‘within the framework’ because it did not add to the clarity of the requirement. The footnote that included the phrase, ‘impaired equipment’ was revised.

<p>We Energies</p>	<p>A.3. Purpose: Replace ‘starting points’ with necessities.</p>
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	<p>R1.2.4 “Operating limitations” is not an appropriate consideration for ratings of facilities. An equipment rating is what it is, and is based on design, materials, cooling, environment, etc, not on any operating considerations or failures of associated equipment. Operating considerations may require equipment to be loaded at less than its rating, but this does not in fact change the rating.</p> <p>R1.3 Replace “A statement that the Facility Rating shall respect the most limiting applicable Equipment Rating” with “Evidence that the Facility Rating shall respect the most limiting applicable Equipment Rating”.</p> <p>Such “evidence” can also be demonstrated by inspection by simply presenting the data in such a way that the overall facility rating is obviously the same as the rating for the most limiting piece of equipment. Requiring a statement to this effect is really not necessary to fulfill the intent of this standard.</p> <p>R1.4 This subsection should actually be the first in this section since it is the most basic requirement. It should be labeled R1.1 and the other subsections re-numbered accordingly.</p> <p>R1.4.1 Add to this list: cable, bus or bus duct, circuit breakers, fuses, switches, current-limiting reactors, and current transformers. Also, the phrase “terminal equipment” should either be defined or eliminated since its meaning is not clear.</p> <p>R2 Use calendar days instead of business days to be consistent, and make this change also in M2, 1.4, 1.4.1, etc. It is suggested that 30 calendar days replace the 15 business days to respond to a request.</p>
<p>Response:</p> <p>The drafting team modified the purpose to replace starting points with a new phrase that better relayed the intent. This supports the intent of your suggestion.</p> <p>Footnote - The rating can also be modified in the operating arena based on e.g. ambient conditions. Please review the revised footnote in conjunction with R2.2.</p> <p>Evidence - The evidence may need to be produced to demonstrate compliance with the methodology – but the requirement is looking for this text to be included in the documented methodology.</p> <p>R1.4 - The listing of the subrequirements is not in order by priority – all are required.</p> <p>R1.4.1 - The list of equipment provided in the standard was not exhaustive nor was it intended to be exhaustive. The suggested additions fall into one of the existing categories.</p> <p>R2 - This was changed to calendar days throughout, but the change did not extend the duration beyond the original intent.</p>	
Ameren	<p>We have concerns regarding the language "in accordance with their respective schedules" (see Violation Severity Levels 2.1.4, 2.2.2, and 2.4.2). The schedules, if required for compliance, need to be posted well in advance of the required dates. Further, the schedules must be realistic and keyed to specific reliability needs.</p>
<p>Response: As proposed, the schedules are submitted with the request for the Facility Ratings. There is no posting</p>	

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requirement in the proposed standard.

AEP

In the Data Retention section 1.3 requires superseded methodologies to be kept for 3 years, and comments to these methodologies for 5 years. Both of these retention periods should be the same. It is not obvious what the reliability reason or compliance reason might be to have such a long retention period for obsolete documents. Nor was this change justified or explained in the SAR. Absent a reasonable explanation, the retention period should be the shortest reasonable duration, such as 1 year as was in the previous version of this Standard.

Response: The proposed frequency of audits for these entities requires a previous 5 years plus current data retention policy.

Comment Form — Second Draft of FAC-008-2 (Project 2006-09)

Please use this form to submit comments on the proposed Revisions to FAC-008-2. Comments must be submitted by **(DATE TO BE DETERMINED)**. You may submit the completed form by e-mail to sarcomm@nerc.net with the words "Facility Rating" in the subject line. If you have questions please contact Maureen Long at Maureen.long@nerc.net or by telephone at 813-468-5998.

Individual Commenter Information		
(Complete this page for comments from one organization or individual.)		
Name:		
Organization:		
Telephone:		
E-mail:		
NERC Region	<input type="checkbox"/>	Registered Ballot Body Segment
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 — Transmission Owners
<input type="checkbox"/> FRCC	<input type="checkbox"/>	2 — RTOs and ISOs
<input type="checkbox"/> MRO	<input type="checkbox"/>	3 — Load-serving Entities
<input type="checkbox"/> NPCC	<input type="checkbox"/>	4 — Transmission-dependent Utilities
<input type="checkbox"/> RFC	<input type="checkbox"/>	5 — Electric Generators
<input type="checkbox"/> SERC	<input type="checkbox"/>	6 — Electricity Brokers, Aggregators, and Marketers
<input type="checkbox"/> SPP	<input type="checkbox"/>	7 — Large Electricity End Users
<input type="checkbox"/> WECC	<input type="checkbox"/>	8 — Small Electricity End Users
<input type="checkbox"/> NA – Not Applicable	<input type="checkbox"/>	9 — Federal, State, Provincial Regulatory or other Government Entities
	<input type="checkbox"/>	10 — Regional Reliability Organizations and Regional Entities

Background Information:

Following the posting of the first draft of the merged FAC-008 and FAC-009, FERC issued Order 693 which includes the following summary of directives relative to FAC-008:

vii. Summary of Commission Determination

771. Accordingly, as discussed in the responses to comments above, the Commission approves FAC-008-1 as mandatory and enforceable. In addition, we direct the ERO to develop modifications to FAC-008-1 through its Reliability Standards development process requiring transmission and generation facility owners to:

- (1) document underlying assumptions and methods used to determine normal and emergency facility ratings;
- (2) develop facility ratings consistent with industry standards developed through an open, transparent and validated process and
- (3) for each facility, identify the limiting component and, for critical facilities, the resulting increase in rating if that component is no longer limiting.

The drafting team had already made modifications to the proposed standard to address the first two of the three directives. On the following pages, the drafting team identifies the additional modifications it made to the standard to address the third directive.

In addition to the summary directives above, Order 693 directed NERC to also consider some of the comments submitted by stakeholders in response to the NOPR on Standards. On the following pages, the drafting team has repeated these comments submitted by stakeholders and indicated whether the drafting team made a conforming change to the standard in support of that comment. Your feedback on the appropriateness of the changes made is needed.

Please review the FERC Order 693 Paragraphs 736 through 771 and the proposed standard and then answer the questions on the following pages.

You do not have to answer all questions. Enter All Comments in Simple Text Format.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

1. FERC directed NERC to give consideration to the following suggestion relative to the need to identify the underlying assumptions and methods used to determine normal and emergency facility ratings:
 - EEI suggested that having the underlying assumptions and methods used to determine normal and emergency facility ratings available for review upon request of a registered user, owner or operator should be considered by the ERO in its Reliability Standards development process.

Under the proposed standard (R3), this information is made available (within 21 calendar days of a request) to those Reliability Coordinators, Transmission Operators, Transmission Planners and Planning Coordinators that have responsibility for the area in which the associated Facilities are located.

Do you think additional changes are needed based on EEI's proposal?

Yes

No

Comments:

2. FERC directed NERC to give consideration to the following suggestion relative to the requirement to develop facility ratings consistent with industry standards developed through an open, transparent and validated process:
 - LPPC asks the Commission to require only that facility ratings be consistent with good utility practice. According to LPPC, to the extent facility rating methodologies need to be more prescriptive than good utility practice, the details must be spelled out in the ERO Reliability Standards themselves, not by reference to other unspecified industry methodologies. LPPC believes that it would be poor policy for the Commission to endorse these methodologies since it would be impossible to police the processes by which such organizations develop their methodologies.

It is not practical to develop, within a single standard, detailed criteria for the rating of every possible piece of equipment that can make up a 'facility.' The drafting team supports the FERC position that rating standards and guidelines that have been developed consistent with one or more industry Equipment Rating standards or guidelines will support the standard's purpose of ensuring that facility ratings are based on technically sound principles.

The drafting team did not make a change to the standard in support of these comments.

Do you believe the drafting team should make additional changes to the standard in support of LPPC's comments?

Yes

No

Comments:

3. FERC directed NERC to give consideration to the following suggestion relative to the requirement to develop facility ratings consistent with industry standards developed through an open, transparent and validated process:

- MRO requests that the Commission clarify whether its directive to modify FAC-008-1 to develop facility ratings consistent with industry standards developed through an open process such as IEEE or CIGRE would allow for legitimate regional differences such as climate, terrain or population density.

The differences cited are typically addressed in equipment rating standards and guidelines, and don't warrant a Regional Variance. The drafting team did not make a change to the standard in support of these comments. **Do you believe the drafting team should make additional changes to the standard in support of MRO's comments?**

Yes

No

Comments:

4. FERC Order 693 included a directive that FAC-008 be modified to include the following:
- (3) for each facility, identify the limiting component and, for critical facilities, the resulting increase in rating if that component is no longer limiting.

This scope of this directive was qualified in paragraph 756 and paragraph 758 of Order 693.

Does Requirement 7 in the proposed standard address this FERC directive?

Yes

No

Comments:

5. FERC directed NERC to give consideration to the following suggestion relative to identifying the resulting increase in rating if the most limiting component of a facility is no longer limiting:
- International Transmission states that, if the Commission were to require defining the increase in facility rating based on the next limiting element, it should restrict such application to transmission elements where the conductor itself is not the limiting element. International Transmission explains that in cases where the line must be completely rebuilt, it would not be feasible to estimate the increase in facility rating, since the new line could be specified to carry virtually any amount of power.

The drafting team modified the standard (R4.1) in support of these comments. **Do you support the modification made to address the concerns of ITC?**

Yes

No

Comments:

6. FERC directed NERC to give consideration to the following suggestion relative to identifying the resulting increase in rating if the most limiting component of a facility is no longer limiting:

- MISO questions how a generator operator or generation owner would identify the increase in rating based on the next most limiting component(s) associated with generator output. FirstEnergy believes that this modification should recognize that generators may need to rely on transmission owners to point out facilities that are more limiting than the generator facilities.

The standard was modified to exclude the generator owner from having to identify the increase in rating based on the next most limiting component of a generating unit. **Do you support the modification made to address the concerns of MISO and FirstEnergy?**

Yes

No

Comments:

7. FERC directed NERC to give consideration to the following suggestion relative to having the standard apply to the generator owner:
 - Xcel states that this Reliability Standard should not apply to generator owners because capability testing, rather than using mathematical calculations, is the preferred method of determining generating unit capability. Capability testing clearly includes the capability of all the supporting components behind the generator that are required to produce a MW of capability. Xcel also states that this proposed Reliability Standard, if applied to generating units, would not improve system reliability and could result in conflicting and confusing unit capability ratings. Xcel notes that generating units already are required to be capability-tested on a periodic and seasonal basis to demonstrate unit gross and net capability in accordance with proposed standards MOD-024-1 and MOD-025-1

The standard was modified to separate the requirement for the Generator Owner to document its methodology for rating its generating facilities from the requirement for the Generator Owner and Transmission Owner to document their methodologies for rating other bulk electric system facilities. The standard was modified to clarify that testing may be used in conjunction with performance tracking and engineering analysis as a method of establishing a facility rating for a generating facility.

MOD-024 and MOD-025 require verification of the facility's capability under specified conditions which don't necessarily match the assumptions used in setting the facility rating. The drafting team did not modify the standard in support of Xcel's suggestion that the standard should not apply to the Generator Owner. **Do you believe the drafting team should make additional changes to the standard in support of Xcel's comments?**

Yes

No

Comments:

8. FERC directed NERC to give consideration to the following suggestion relative to dynamic ratings:
 - Valley Group notes that, while the Commission's proposal would direct the ERO to respond to a part of Blackout Report Recommendation No. 27, it does not address the important second part of the Recommendation, namely dynamic ratings. Valley Group notes that dynamic ratings offer a

very powerful tool both for maximizing the capabilities of transmission paths and for avoiding unnecessary transmission line loading relief.

Valley Group also notes that dynamic ratings, based either on ambient-adjusted ratings or ratings generated by real-time monitoring systems, are widely used in the PJM system, while broader real-time ratings are applied on certain lines in SPP and ERCOT and at several individual utilities. Valley Group states that controlling unnecessary operator interventions with dynamic ratings both increases the reliability of Bulk-Power System and improves its economy. Valley Group concludes that it would be highly desirable for the ERO to establish policies and procedures regarding dynamic ratings – as recommended by the Blackout Report, and recommends that the Commission include such guidance in its Final Rule.

- The Commission believes that implementation of the modifications discussed earlier to Reliability Standard FAC-008-1 meets our goal of implementing Blackout Report Recommendation No. 27, which is to “develop enforceable standards for transmission line ratings.”²⁷⁵ To achieve a clear and unambiguous Requirement to rate transmission lines, it is important to understand the underlying assumptions and the methodologies that will be used to develop those ratings. The Commission recognizes that dynamic line ratings are an innovative application, and directs the ERO to consider the comments from Valley Group in future revisions of this Reliability Standard.

The drafting team modified Requirement 2.2.3 by changing, ‘ambient conditions’ to ‘ambient conditions (average or as they vary in real-time)’ to recognize that facility owners using dynamic facility ratings may collect information on ambient conditions in real-time.

The drafting team believes that the requirements for a facility rating methodology in the proposed standard apply to dynamic ratings without needing additional language modifications. **Do you believe the drafting team should make additional changes to the standard in support of Valley Group’s comments?**

Yes

No

Comments:

9. If you have any other comments on this standard that you have not already submitted above, please provide them here.

No additional comments

Comments: