

**Comment Form for the 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 **August 17, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto: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](mailto:maureen.long@nerc.net) or by telephone at 813-468-5998.

<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:	Karl Kohlrus	
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Telephone:	217-321-1391	
E-mail:	Karl.Kohlrus@cwlp.com	
NERC Region (Check all that apply)		Registered Ballot Body Segment (Check all that apply)
<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 checked="" type="checkbox"/>	5 – Electric Generators
<input checked="" type="checkbox"/> SERC	<input type="checkbox"/>	6 – Electricity Brokers, Aggregators, and Marketers
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<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**

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### **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.

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**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 believe additional changes are needed based on EEI's suggestion?**

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.

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 — such as climate, terrain and wind — cited are addressed as inputs in equipment rating industry standards and guidelines. Therefore, regional differences, based upon owner supplied inputs such as climate, terrain, and/or wind 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 regard to 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 substantially 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 (R7.2) 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 (as may be applicable) 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: I strongly feel that generation facility ratings and transmission facility ratings should be addressed in separate standards. They are as different as night and day and they are applicable to different parties.

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 (static 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. Several stakeholders indicated the applicability of the Generator Owner needed to be expanded beyond those with units directly connected to the BES. **Do you agree with the revised applicability for the Generator Owner?**
- Generator Owner with units in a plant directly connected to the BES and units in a plant with an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES

Yes

No

Comments:

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<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
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NERC Region (Check all that apply)		Registered Ballot Body Segment (Check all that apply)
<input type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
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Yes

No

Comments: Reliant supports Xcel's position that this standard should not apply to the generator owner(GO). Reliant supports having the standard apply to the generator operator (GOP). . The GOP would be the entity conducting or supervising any testing or unit operation required to comply with this standard. The GOP is most likely the entity responsible for maintenance of unit equipment so the GOP would be most familiar with equipment limits, ratings and capabilities. In addition, replacing GO with GOP has the following benefits:

1. How a facility is operated has more impact on reliability than ownership of a facility.
2. Removing the GO from responsibility will more clearly define who is responsible for standard compliance at jointly-owned facilities.

3. For jointly-owned facilities, this change eliminates the need for each owner to make redundant submittals and streamlines administration for each Regional Entity.

4. As the industry moves away from the regulated model, more non-traditional entities will become owners of facilities. These owners typically contract operation responsibilities to entities with operating experience. The operating entity will more fully understand the importance of reliability and would be in a better position to comply.

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.

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Yes

No

Comments:

9. Several stakeholders indicated the applicability of the Generator Owner needed to be expanded beyond those with units directly connected to the BES. **Do you agree with the revised applicability for the Generator Owner?**

- Generator Owner with units in a plant directly connected to the BES and units in a plant with an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES

Yes

No

Comments: Reliant agrees with the revised applicability but as stated above in 7 Reliant believes that the generator owner should be replaced with generator operator.

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

Comments: If each owner of a joint owned facility must have a documented methodology for determining facility ratings then in the case of a facility with 7 or 8 owners this could easily and most likely end up with 7 or 8 methodologies that are different. Which methodology should be followed? Also, it is not prudent or practical to determine the ratings multiple times. This could result in 7 or 8 slightly different ratings. Which rating is the Reliability Coordinator or Planning Authority to use? By having the generator operator determine the rating there will be only one methodology that is applied one time.

What role should the owner play? Shouldn't the owner determine the facility ratings? The functional model states that owner establishes facility ratings, limits and operating requirements. This is correct, the owner will want to protect their investment from damage from exceeding the facility limits. The owner would spell this out in any contractual arrangement that the owner will have with the operator. The owner then is actively involved in setting facility ratings to protect their investment. In addition, the owner would be reviewing any reports that the operator would be submitting to the entity or entities specified in the standard. We don't believe that the functional model working group intended for the functional model to determine standard applicability. Standard applicability should be determined by what results in improved reliability. Reliant believes that this is accomplished by assigning the generator operator responsible for determining facility ratings.

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<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:	Brian D. Bartos	
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E-mail:	b.bartos@banderaelectric.com	
NERC Region (Check all that apply)	Registered Ballot Body Segment (Check all that apply)	
<input checked="" type="checkbox"/> <b>ERCOT</b>	<input checked="" type="checkbox"/>	1 – Transmission Owners
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**Do you believe additional changes are needed based on EEI's suggestion?**

- Yes  
 No

Comments: The proposed language should be sufficient to address the issue identified by EEI.

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.

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: The language of the proposed standard strikes a good balance between the need for consistent ratings based on a number of industry standards and the need for owners to determine specific ratings for their equipment based on specific conditions and circumstances.

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 — such as climate, terrain and wind — cited are addressed as inputs in equipment rating industry standards and guidelines. Therefore, regional differences, based upon owner supplied inputs such as climate, terrain, and/or wind 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 regard to MRO's comments?**

Yes

No

Comments: In requiring owners to use general industry standards, sufficient flexibility should be included in applying these standards such that a Regional Variance is not required or necessary to comply with this standard in terms of climate, terrain, and/or wind.

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 substantially 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 (R7.2) 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 (as may be applicable) 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: While BEC agrees with Xcel that capability testing should be the preferred method to determine generating unit capability, the proposed language of R1 appears to address all concerns.

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 (static 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: No, the proposed language encompasses the concern of Valley. No additional changes should be made at this time.

9. Several stakeholders indicated the applicability of the Generator Owner needed to be expanded beyond those with units directly connected to the BES. **Do you agree with the revised applicability for the Generator Owner?**

- Generator Owner with units in a plant directly connected to the BES and units in a plant with an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES

Yes

No

Comments: While BEC agrees there needs to be a threshold amount, could the SDT address why 300 MVA was chosen and not some other level?

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

Comments: BEC commends the SDT for their effort in improving this standard.

**Comment Form for the 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 **August 17, 2007**. You may submit the completed form by e-mail to [sarcomm@nerc.net](mailto: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](mailto:maureen.long@nerc.net) or by telephone at 813-468-5998.

<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
Name:	Rick Blumenstock	
Organization:	Consumers Energy	
Telephone:	517.788.0928	
E-mail:	rblumenstock@cmsenergy.com	
NERC Region (Check all that apply)		Registered Ballot Body Segment (Check all that apply)
<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 checked="" type="checkbox"/>	4 – Transmission-dependent Utilities
<input checked="" 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
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	<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 believe additional changes are needed based on EEI's suggestion?**

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.

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 — such as climate, terrain and wind — cited are addressed as inputs in equipment rating industry standards and guidelines. Therefore, regional differences, based upon owner supplied inputs such as climate, terrain, and/or wind 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 regard to MRO's comments?**

Yes

No

Comments:

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- (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 substantially 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 (R7.2) in support of these comments. **Do you support the modification made to address the concerns of ITC?**

Yes

No

Comments: From an operating perspective, knowledge of the next most limiting item is useful input into making operating decisions. Modes of failure and failure consequence vary with equipment type. When managing risk in the operations arena, knowing this information is vital in making decisions. International Transmission's comments appear to stem from a narrowly focused planning perspective.

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: The directive is for just the generator owners equipment, not the integrated transmission limit. First Energy expanded the question from generation owned equipment, to an integrated transmission limit.

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 (as may be applicable) 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.

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Yes

No

Comments:

9. Several stakeholders indicated the applicability of the Generator Owner needed to be expanded beyond those with units directly connected to the BES. **Do you agree with the revised applicability for the Generator Owner?**

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Yes

No

Comments:

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

Comments:

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<b>Individual Commenter Information</b>		
(Complete this page for comments from one organization or individual.)		
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E-mail:	smyers@ercot.com	
NERC Region (Check all that apply)	Registered Ballot Body Segment (Check all that apply)	
<input checked="" type="checkbox"/> ERCOT	<input type="checkbox"/>	1 – Transmission Owners
<input type="checkbox"/> FRCC	<input checked="" type="checkbox"/>	2 – RTOs and ISOs
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**Do you believe additional changes are needed based on EEI's suggestion?**

Yes

No

Comments:

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  - 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.

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:

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Yes

No

Comments:

4. FERC Order 693 included a directive that FAC-008 be modified to include the following:

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

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

Yes

No

Comments: It is important to differentiate between this type of "rating" (i.e., a "rating" that is hypothetical to the condition that the limiting component is no longer limiting), and the applicable rating that must be used in the development of operating limits. Further, in all likelihood, once a limiting component is somehow modified or replaced such that it is no longer limiting, there will be some other component that becomes limiting. Therefore, this should be handled separately, as suggested by the revisions the drafting team.

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 (R7.2) in support of these comments. **Do you support the modification made to address the concerns of ITC?**

Yes

No

Comments:

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Yes

No

Comments:

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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:

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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: There is no requirement, stated or implied, that the facility rating methodology applies only to static ratings. The methodology may describe a dynamic rating methodology commensurate with the various methods which the industry has identified as appropriate. While the weighting factors of differing ambient condition parameters may vary geographically, the methodologies generally must address which conditions are appropriate and how they will be used in the determination of the dynamic facility ratings.

9. Several stakeholders indicated the applicability of the Generator Owner needed to be expanded beyond those with units directly connected to the BES. **Do you agree with the revised applicability for the Generator Owner?**

- Generator Owner with units in a plant directly connected to the BES and units in a plant with an aggregate > 300 MVA (gross nameplate rating) not directly connected to the BES

Yes

No

Comments:

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

Comments: No additional comments.