COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by **April 03, 2005**. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

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- use more than one form if responses do not fit in the spaces provided.  
- submit any formatted text or markups in a separate WORD file.

**DO NOT:**  
- insert tabs or paragraph returns in any data field.  
- use numbering or bullets in any data field.  
- use quotation marks in any data field.  
- submit a response in an unprotected copy of this form.

### Individual Commenter Information

*(Complete this page for comments from one organization or individual.)*

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### NERC Region

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Group Comments (Complete this page if comments are from a group.)

**Group Name:**  SERC EC Planning Standards Subcommittee  
**Lead Contact:**  Kham Vongkhamchanh  
**Contact Organization:**  Entergy Services, Inc.  
**Contact Segment:**  1  
**Contact Telephone:**  (504) 310-5812  
**Contact Email:**  kvongkh@entergy.com  

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<td>Darrell Pace</td>
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<td>David Weekley</td>
<td>MEAG Power</td>
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<td>Clay Young</td>
<td>SC Electric and Gas</td>
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Background Information:

The Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard was last posted for a public comment period from December 1, 2003 through January 21, 2004. The SDT received 43 sets of comments, representing 170 different individuals from 89 entities in six of the nine Industry Segments, and all NERC Regions.

While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT’s proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [ ] Disagree

Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed

☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree

☐ Disagree

Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☐ No additional changes needed
   ☑ The following additional criteria are needed:
     Comments:FAC-010-1, section B, paragraphs R4.1 & R4.2 - Both paragraphs require that the system "demonstrate transient, dynamic, and voltage stability." These terms mean different things to different people. The terms need to be defined. The best course of action would probably be to require each RA and PA define the terms in their SOL & IROL methodology.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☑ Agree
   ☐ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - [ ] No additional criteria needed
   - [ ] The following additional criteria are needed:
     
     Comments:
     
8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - [ ] Agree
   - [ ] Disagree
   
   Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

- Other comments:

- Although the technical content of FAC-008-1 does not require additional revisions, M1 can be simplified. Change M1 FROM:
  The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the following:
  TO
  The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items listed in Reliability Standard FAC-008-1-R1.1 through R1.3.

- DELETE M1.1 through M1.3. This will eliminate the redundancy since M1.1 through M1.3 has the same wording as R1.1 through R1.3.

- For consistency, this type of revision needs to be made to the standards in this series.

- FAC-008-1, section D, paragraph 1.2 - The first sentence states "...within the first year that the entity commences operation." It is not clear who "the entity" is. Transmission Owners, Generation Owners, and Compliance Monitors have been in operation for many years. This needs to be defined better.

- FAC-009-1, section B, paragraph R2 - The wording is awkward. It should be like the wording in M1.1. Therefore, R2 should read "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 Authority(ies), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.

- FAC-009-1, section B, paragraph R2 - Ratings are required to be supplied according to the schedule of the requesting entity. There is no guarantee that the schedule will be reasonable. The wording should be "according to a schedule agreed to among the requesting entities and the Transmission Owner/Generator Owner.

- FAC-010-1, section B, paragraph R4 - The requirement for the RA and PA to document their SOL methodologies is already in R1 & R2. There is no need for it to be repeated in R4. Therefore, R4 should be "Each SOL methodology shall include a requirement that SOLs provide BES performance consistent with the following:....."

- FAC-010-1, section B, paragraph R5 - Item 5.4 requires that the SOL methodology include a description of "Any Special Protection Systems or Remedial Action Plans used". The way this requirement is phrased, it is more applicable to establishing SOL, rather than
the establishing a methodology. The wording should be changed to the following: "Allowed use of Special Protection Systems or Remedial Action Plans."

- FAC-010-1, section C, paragraph M3 - A measure M3.3 is needed which says "Each Transmission Planner that works in the Planning Authority’s Planning Authority Area" to be consistent with R7.3.

- FAC-011-1, section B, paragraph R4.2 - This seems to require a Transmission Operator to establish SOLs. This is not consistent with the latest Changes Made Based on Industry Comments document in which it says that "For this standard, the SDT assumed that the RA is responsible for establishing all SOLs for its RA Area — but may delegate part of this activity to its TOPs. Without formal delegation, the TOP is not responsible for developing any SOLs." The wording should be clarified as follows: "The Transmission Operator shall provide any SOLs (for which it has been delegated the responsibility to develop) to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area."

- Although the technical content of FAC-012-1 do not require additional revisions, M1 through M3 can be simplified since the measures are a repeat of the corresponding requirements R1 through R3.

- FAC-012-1, section B, paragraphs R2 & R3 - The wording is awkward. It should be changed to the following: "...shall issue its Transfer Capability Methodology, and any changes to that methodology, prior to the effectiveness of such changes, to all of the following:"

- FAC-012-1, section B, paragraph R3.2 - The wording is unclear. It should be changed to the following: "Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area."

- FAC-012-1, section C, paragraph M3.2 - The wording is unclear. It should be changed to the following: "Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area."

- FAC-012-1, section C, paragraph M4 - This repeats the requirements of M2 and M3. Therefore it is not needed and should be deleted.

- FAC-013-1, section B, paragraph R2.1 - The paragraph contains the following: "...to its adjacent Reliability Authorities, to Reliability Authorities, and...". The second use of "to Reliability Authorities" should be deleted.
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

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Individual Commenter Information
(Complete this page for comments from one organization or individual.)

Name: Michael C. Calimano
Telephone: 518-356-6129
Email: mcalimano@nyiso.com

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Please answer the following questions:

Definitions:

1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?

☐ Agree
☒ Disagree

Comments: NYISO believes the original definition as stated in the Version 0 Glossary is preferable to the revised definition of Cascading Outages.

The definition for Contingency should be reworded as follows: Contingency: The unexpected outage of a single system element or multiple elements initiated by a single event.

IROL definitions should be coordinated with Operating Definition Limit Task Force. There is concern that an entity could repeatedly violate a given IROL, yet never exceed the $T_v$ during any violation. This would not represent an ideal mode of operation, but is not addressed in the standard.

Coordination of the terms used to comprise the glossary would improve the clarity of the definitions, e.g. the definition of Cascading Outages uses the phrase 'system elements' and the definitions for Contingency uses the phrase 'system components'. Are components and elements interchangeable? Are components the same as Facilities? Using the same phrase wherever possible would eliminate some confusion.

NERC Definition should perhaps be revised and coordinated by one entity responsible for that definition.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments: There is no time requirement for the equipment owner to provide the equipment rating to the requesting entity. All other standards in the group of standards designate a time requirement for submitting requested data.

The designations that have recently been developed and presented to the Standing Committees regarding the Functional Model also need to be incorporated and continued to be coordinated as they are revised.

Comments on Facility Ratings Standard FAC-008-1

The requirement R1.3 should be consistent with and based on credible and recognized standards/criteria (such as IEEE, ANSI etc) for purposes of methodology that could be used as guidelines.

We are of the opinion that the measures M2 and M3 have no merit if there is no requirement to follow any credible methodology. Accordingly, this further necessitates the need for a consistent recognized standard/criteria re: methodology.

The Compliance section 2.3 states: "three of the required equipment types", when referring to what equipment needs a rating methodology, yet there is no discrete list of "equipment types" in the standard. The list of equipment types given in R.1.2.1 is incomplete.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: The standard in its present form is very vague. For example, there is no requirement for an owner to use an acceptable methodology. In such a scenario, the outcome could be a set of ratings that are not useful for real operation and/or planning. The requirement for peer review would therefore not be effective.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?

☐ Agree
☐ Disagree

− Comments: The SDT for this group of standards was formed to address the requirements spelled out in the initial SAR. By incorporating the identification of IROL aspects into the standards, does the current SDT membership possess the operational background uniquely necessary to IROL matters?

− There is also concern with the Planning Authority being involved with the determination of the SOL and IROL limits. The ISO/RTO SRC is of the opinion that version 0 (now called Reliability Standards) should be considered as a baseline set of standards and any applicable incremental changes/additions should be made to base standards to develop a set of new standards, as and where required.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?

☐ No additional changes needed
☐ The following additional criteria are needed:

Comments: See response to 4.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?

☐ Agree
☐ Disagree

Comments: As far as methodology is concerned, perhaps the RRO coordination/arbitration would be preferable.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - [ ] No additional criteria needed
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   Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - [ ] Agree
   - [ ] Disagree

   Comments:
9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

☒ The following changes should be made to the standard before it is submitted for ballot:

− Other comments: The FAC and IRO standards need to be closely coordinated and there is concern that a key component requirement may end up missing.

− The SDT should be also commended for requiring the distribution of study results in FAC-011-1 (R4) to those entities that have indicated a "reliability related need". However it is not apparent how to determine what a "reliability related need" is. How would an entity know if they are compliant or not if an the entity refuses a request based on another entities perception of "reliability need" that differs from the limit holders perception of "reliability need"? The bottom line is that a clear or specific criteria is missing. The real requirement to distribute should be defined in explicit terms. That is, those entities in the host Area that perform the Reliability Assessments in planning and real time for the facilities, along with those similar entities in adjoining or other areas that operate facilities that are critical to the limit. (ie move R4.2, R4.3 and R4.4 in front of R4.1).

− R4.1.1 does not fully capture the Boundary conditions concept. In addition to the identification and status of the associated Facility critical to the limit, the operators need to be aware of those components within a Facility that are critical to the limit and their required status. If the term "Facility" is applied as defined in FAC-008-1 (a "set of electrical equipment that operates as a single BES element") then by definition, it is quite possible that critical elements can be inadvertently excluded from this knowledge base. For example, it is possible that a generator could be in service with impaired operation of the AVR or stabilizer. If it is the operation of the AVR or Stabilizer that is critical to the limit, and only the generator is deemed critical then it is possible to have a limit in effect that is invalid.

− As part of the Boundary conditions, the operators also need to be aware of the electrical area for which the limits cover, any pertinent Minimum and Maximum values any study indicates for the limits to be valid, and as stated above the status of auxiliaries within any facility that are critical to the limit.

− The NERC proposed minimum requirement for testing single contingencies is troublesome. The language in the Standard FAC-010 needs to be more explicit to ensure that credible, appropriate multiple contingencies are being respected. The language in R4.4 does not cover this issue thoroughly enough.

− This draft continues to omit Category C contingencies. This is of particular concern because: The recently adopted Version 0 Standards - specifically Standard TPL-003-0, “System Performance Following Loss of Two or More BES Elements” - includes Category C contingencies, and adoption of FAC-011-1 in its present form without considering these contingencies, we believe, would be inconsistent with Standard TPL-003-0 and a weakening of existing NERC standards.

− To state in this standard that Regions may have more stringent standards covering Category C contingencies does not suffice – NYCA reliability could be impacted if a neighboring system operates to the weaker NERC criteria.

− The U.S. - Canada Power System Outage TF Report's Recommendation #25 states: "A strong transmission system designed and operated in accordance with weakened criteria would be disastrous. Instead, a concerted effort should be undertaken to
determine if existing reliability criteria should be strengthened…Only through strong standards and careful engineering can unacceptable power failures like August 14, 2003 be avoided in the future.” Draft 3 does not meet this principle.

- There is concern that the Version 1 standards “piecemeal approach” to replace standards that appear in Version 0 may result in confusion by the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an Implementation Plan be posted with each new Standard to ensure that the necessary coordination and planning has been done to replace/retire the pertinent Version 0 standards or requirements contained therein.
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Individual Commenter Information
(Complete this page for comments from one organization or individual.)

Name:

Organization:

Telephone:

Email:
Group Comments (Complete this page if comments are from a group.)

**Group Name:** ISO/RTO Standards Review Committee  
**Lead Contact:** Karl Tammar  
**Contact Organization:** ISO/RTO Council  
**Contact Segment:** 2  
**Contact Telephone:** 518-356-6205  
**Contact Email:** ktammar@nyiso.com

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<td>Sam Jones</td>
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<td>Bruce Balmat</td>
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<td>Charles Yeung</td>
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Background Information:

The Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard was last posted for a public comment period from December 1, 2003 through January 21, 2004. The SDT received 43 sets of comments, representing 170 different individuals from 89 entities in six of the nine Industry Segments, and all NERC Regions.

While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [x] Disagree

Comments:
The ISO/RTO SRC disagrees with the revised definitions of Cascading Outages, Contingency and IROL, and recommends the use of original definitions as stated in the Version 0 Glossary for consistency purposes.

NERC definitions should be coordinated and revised by one body/entity responsible for that definition (such as Director, NERC Standards)
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments:

Comments on FAC-008-1

The designations that have recently been developed and presented to the Standing Committees regarding the Functional Model, once approved, should be incorporated and any further approved changes should continue to be coordinated/incorporated, as they are revised.

The requirement R1.3 should be consistent with and based on credible and recognized standards/criteria (such as IEEE, ANSI etc) for purposes of “methodology” that could be used as guidelines.

In section C the measures M1.2 and M1.2.1 are exact repetition/copy of requirements R 1.2 and R1.2.1. We recommend that R1.2/R1.2.1 should be revised to reflect these as specific measures. Moreover, there is a need to add a requirement and associated measure “to change methodology”, if the technical review results show that it does not meet the criteria and/or methodology specified on R1.3.

We are of the opinion that the measures M2 and M3 have no merit if there is no requirement to follow a credible methodology. Accordingly, this further necessitates the need for a consistent recognized standard/criterion re: “methodology”.

Comments on Facility Ratings Standard FAC-009-1

Section D -1.3 mentions about retention of documentation for 12 months. What would be duration of retention of non-compliance/audit data for compliance monitor?

In general, many of the measures are written more like requirements. Measures should be phrased and specified in a manner that they provide evidence for meeting the requirements.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: The standard in its present form is very vague. For example, there is no requirement for an owner to use an acceptable methodology. In such a scenario, the outcome could be a set of ratings that are not useful for real operation and/or planning. The requirement for peer review would therefore not be effective. It is worth noting that FERC also recommends that a
single line methodology and criteria be identified. Therefore, this necessitates the need for a consistent recognized standard/criteria for purposes of "methodology".

In the absence of such a recognized/consistent methodology, there is a possibility that the ratings could be artificially set so low, as to influence dispatches and flows on other circuits.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - [ ] Agree
   - [x] Disagree

   Comments: The SAR states that this is a new standard. The ISO/RTO SRC is concerned that the Version 1 standards "piecemeal approach" to replace standards that appear in Version 0 may result in confusion by the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an Implementation Plan be posted with these new Standards, as required under NERC standards process to ensure that the necessary coordination and planning has been done to either replace/retire the pertinent Version 0 standards or incremental requirements added/contained therein.

   The ISO/RTO SRC is of the opinion that version 0 (now called Reliability Standards) should be considered as a baseline set of standards and any applicable incremental changes/additions should be made to base standards to develop a set of new standards, as and where required.

   There are also concerns with the Planning Authority being involved with the determination of the SOL and IROL limits. Is this intentional?. According to the Functional Model (FM) the Transmission Operator should define the SOL limits and not the Planning Authority. Moreover, as per FM, the RA calculates the IROLs. These roles used in this draft need to be clarified.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - [ ] No additional changes needed
   - [x] The following additional criteria are needed:

   Comments: See the comments in question #4 above.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - [ ] Agree
   - [x] Disagree

   Comments: See comments in question #3 above.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

- ☐ No additional criteria needed
- ☑ The following additional criteria are needed:

  Comments: We question the need for multiple standards such as Transfer Capability standard, existing Total Transfer Capability standard and/or SOL related standards re: SOL methodology…establishment. Would this raise questions of redundancies and duplications? This issue needs to be clarified.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

- ☐ Agree
- ☑ Disagree

  Comments: See question #7 above.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: The FAC and IROL standards need to be closely coordinated in order to ensure that no key component requirement is missed.

In FAC-011-1 Requirement 4.1.1 change parenthetical to read (or group of facilities and or their associated equipment such as stabilizers and AVRs)

With regards to Requirements R2 and R4.2 of FAC-011-1 standard there are again concerns with the Planning Authority being involved with the determination of the SOL and IROL limits. According to the Functional Model the Transmission Operator should develop the SOL limits not the Planning Authority. Is this intentional? This needs to be clarified.

The SDT should be commended for requiring the distribution of study results in FAC-011-1 (R4) to those entities that have indicated a "reliability related need". However it is not apparent how to determine what a "reliability related need" is. How would an entity know if they are compliant or not if an the entity refuses a request based on another entities perception of "reliability need" that differs from the limit holder's perception of "reliability need". The bottom line is that a clear or specific criterion is missing.

The real requirement to distribute should be defined in explicit terms. That is, those entities in the host Area that perform the Reliability Assessments in planning and real time for the facilities, along with those similar entities in adjoining or other areas that operate facilities that are critical to the limit. (ie move R4.2, R4.3 and R4.4 in front of R4.1).

R4.1.1 does not fully capture the Boundary conditions concept. In addition to the identification and status of the associated Facility critical to the limit, the operators need to be aware of those components within a Facility that are critical to the limit and their required status. If the term "Facility" is applied as defined in FAC-008-1 (a "set of electrical equipment that operates as a single BES element") then by definition, it is quite possible that critical elements can be inadvertently excluded from this knowledge base. For example, it is possible that a generator could be in service with impaired operation of the AVR or stabilizer. If it is the operation of the AVR or Stabilizer that is critical to the limit, and only the generator is deemed critical then it is possible to have a limit in effect that is invalid.

As part of the Boundary conditions, the operators also need to be aware of the electrical area to which the limits apply, any pertinent Minimum and Maximum values any study indicates for the limits to be valid, and as stated above the status of auxiliaries within any facility that are critical to the limit.

The standard FAC-010-1 Requirement R2 states as follows: "The PA shall document its SOL methodology for use in developing SOL's within its Planning authority Area. The PA's SOL Methodology shall be applicable for developing SOLs used in the planning horizon. The PA's SOL Methodology shall state that SOLs shall not exceed associated facility ratings".

It is in above context that we feel that there are inconsistencies pertaining to FAC-010-1 and TPL-003-0, resulting in confusion. As per requirement R2 of FAC-010-1 requiring SOL Methodology to be applicable for developing SOL's in planning horizon, questions and concerns arise:
− The recently adopted Version 0 Standards - specifically Standard TPL-003-0, “System Performance Following Loss of Two or More BES Elements” - include Category C contingencies. Adoption of FAC-010-1 &011 in present form without considering these contingencies would be inconsistent with Standard TPL-003-0 and a weakening of existing NERC standards.

− To state in this standard that Regions may have more stringent standards covering Category C contingencies does not suffice – some Areas reliability could be impacted if a neighboring system operates to the weaker NERC criteria.

− There is a curiosity as to why NERC - if it maintains the principle that Regions may have more stringent criteria than NERC criteria – singles out just one section of this Standard in which to apply the principle, rather than stating that the principle is applicable to the entire standard.

The U.S. - Canada Power System Outage TF Report's Recommendation #25 states: “A strong transmission system designed and operated in accordance with weakened criteria would be disastrous. Instead, a concerted effort should be undertaken to determine if existing reliability criteria should be strengthened...Only through strong standards and careful engineering can unacceptable power failures like August 14, 2003 be avoided in the future.” We do not believe that Draft 3 meets this principle.

The ISO/RTO SRC is concerned that the Version 1 standards' "piecemeal approach" to replace standards that appear in Version 0 may result in confusion within the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an Implementation Plan be posted with each new Standard to ensure that the necessary coordination and planning has been done to replace/retire the pertinent Version 0 standards or incremental requirements contained/added therein.

The ISO/RTO SRC is of the opinion that version 0 (now called Reliability Standards) should be considered as a baseline set of standards and any applicable incremental changes/additions should be made to base standards to develop a set of new standards, as and where required.

Based on our comments, and especially in the absence of a clear implementation plan, we are of the opinion that the FAC standard(s) is not acceptable and ready for ballot.
This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by **April 03, 2005**. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

**ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE AND IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:**

**DO:**
- Do enter text only, with no formatting or styles added.
- Do use punctuation and capitalization as needed (except quotations).
- Do use more than one form if responses do not fit in the spaces provided.
- Do submit any formatted text or markups in a separate WORD file.

**DO NOT:**
- Do not insert tabs or paragraph returns in any data field.
- Do not use numbering or bullets in any data field.
- Do not use quotation marks in any data field.
- Do not submit a response in an unprotected copy of this form.

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**Individual Commenter Information**

*(Complete this page for comments from one organization or individual.)*

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<th>Name:</th>
<th>Peter Burke [on behalf of ATC's Jason Shaver, Hari Singh, and Charles Lawrence]</th>
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<tr>
<td>Organization:</td>
<td>American Transmission Company</td>
</tr>
<tr>
<td>Telephone:</td>
<td>262-506-6863</td>
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<tr>
<td>Email:</td>
<td><a href="mailto:PBurke@atcllc.com">PBurke@atcllc.com</a></td>
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**Registered Ballot Body Segment**

- 1 - Transmission Owners
- 2 - RTOs, ISOs, Regional Reliability Councils
- 3 - Load-serving Entities
- 4 - Transmission-dependent Utilities
- 5 - Electric Generators
- 6 - Electricity Brokers, Aggregators, and Marketers
- 7 - Large Electricity End Users
- 8 - Small Electricity End Users
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Group Comments (Complete this page if comments are from a group.)

Group Name:
Lead Contact:
Contact Organization:
Contact Segment:
Contact Telephone:
Contact Email:

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Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [x] Disagree

   Comments: The maximum time $T_v$ that an IROL can be violated should also include the corresponding (maximum) extent of violation (above/below IROL). In most cases, the acceptable time duration will depend on the extent that the IROL is violated.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?
   - ☑ No additional changes needed
   - ☐ The following additional criteria are needed:
     Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?
   - ☐ Agree
   - ☑ Disagree
     Comments: Requirement 3 should be deleted because it offers no clear path to improved methodology and no discernable benefit to the industry. It requires the RA to respond to a comment but does not require the RA to make any changes to the methodology. The only purpose of this might be as a paper trail documenting a disagreement or, possibly, as a resource to help somebody try to assign after the fact culpability for some undesirable, possibly even unrelated, event.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:
   Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   Comments: Requirement 9 should be deleted because it offers no clear path to improved methodology and no discernable benefit to the industry. It requires the RA to respond to a comment but does not require the RA to make any changes to the methodology. The only purpose of this might be as a paper trail documenting a disagreement or, possibly, as a resource to help somebody try to assign after the fact culpability for some undesirable, possibly even unrelated, event.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☑ No additional criteria needed
☐ The following additional criteria are needed:

Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☐ Agree
☒ Disagree

Comments: Requirement 4 should be deleted because it offers no clear path to improved methodology and no discernable benefit to the industry. It requires the RA to respond to a comment but does not require the RA to make any changes to the methodology. The only purpose of this might be as a paper trail documenting a disagreement or, possibly, as a resource to help somebody try to assign after the fact culpability for some undesirable, possibly even unrelated, event.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments:

Global Comments:

Please provide an implementation plan that clearly indicates the Standard Drafting Team’s intention regarding how the existing V0 Reliability Standards, or portions thereof, will be retired following adoption of these six V1 Standards. For example:
First, it appears that FAC-008-1 and FAC-009-1 can replace FAC-004-0 and FAC-005-0. However, American Transmission Company strongly recommends updating FAC-008-1 and FAC-009-1 to reflect the need for establishing and communicating both Normal and Emergency facility ratings.
Second, it is not clear whether adoption of FAC-012-1 and FAC-013-1 will lead to the retirement of MOD-001-0 and MOD-002-0, since both pairs of standards address Transfer Capability (TTC/ATC in V0 standards) methodology and establishing TTC and ATC values. However, despite the redundancy in purpose, FAC-012 and FAC-013 are applicable to RA and PA, whereas the MOD-001 and MOD-002 are applicable to the RRO.

FAC (Facilities Design, Connections and Maintenance) does not appear to be the most intuitive classification for the standards FAC-010 through FAC-013 considering these standards pertain to system quantities (SOL, IROL and TC). American Transmission Company suggests using the MOD prefix for these four standards since SOL, IROL and TC will invariably be calculated from the Bulk Electric System models for the operating and planning horizon.

American Transmission Company recommends that the Standard Drafting Team incorporate relevant revisions in the Standards to account for the clarifications and recommendations on Functional Model roles, responsibilities, and authorities available in the FM-RSC TF report of March 11, 2005 titled "Recommendations to Facilitate Use of the Functional Model to Guide the Development and Application of Reliability Standards."

Specific Comments:

FAC-009-1, M2: Suggest that a reasonable timeframe for reporting Facility Ratings (e.g. within 5 business days or a "mutually agreed schedule") be used, rather than "as scheduled by such requesting entities". What if the requestor’s schedule is unrealistic and/or unreasonable?

FAC-010-1:

First, the Transmission Operator should determine the methodology used to determine SOLs. Although this standard drafting team asked members of the Functional Model Drafting team for a clarification, the Functional Model Drafting team does not have the only authority for the interpretation. The functional model clearly states the following regarding the Transmission Operator: Defines operating limits, develops contingency plans, and monitors operations of the transmission facilities under the Transmission Operator’s control and as directed by the Reliability Authority. The entity that is responsible for creating the methodology is the entity that will define the operating limits. If the Functional Model Drafting Team or this drafting team wishes to change this assigned Responsibility, then the Functional Model should be changed and presented back the industry for review. It is American Transmission Company’s position that the methodology developed for determining SOLs should reside with the Transmission Operators and not with the Reliability Authorities. It is also American Transmission Company’s position that the Reliability
Authorities should be the entities that develop the methodologies used to determine IROLs, as that is clearly stated in the Functional Model.

Second, American Transmission Company is concerned that if this standard is not corrected to allow TOPs the responsibility for developing SOLs, then the TOPs could be required to use a methodology that could be detrimental. The approach taken by the standard drafting team may, on the surface, be reasonable but when looked at more in depth, could lead to bigger problems. Too much authority is being assigned to the RA that is truly burdensome to the TOPs, the Transmission Owners, and their customers. This process currently is performed by the TOPs and this change would be a major change within the industry. As one example, the RA could implement in its methodology that manual intervention, although allowed, will not be considered when developing SOLs. As a second example, the methodology could state that SOLs will be assigned to any Facility that is loaded to 95% of the normal rating or only 24 hr transformer rating can be used.

FAC-010-1, M3: Suggest adding measure M3.3 which corresponds to R7.3 and thus ensures that the Transmission Planner is a recipient of the SOL methodology and any changes to it.

FAC-010-1, R6, R7 and M2, M3: Suggest that a reasonable time-frame for reporting any "changes" to the SOL methodology (e.g. within 5 business days of the change, or 30 calendar days prior to the effective date of the change) be included to ensure timely dissemination of information by PA and RA.

FAC-010-1, R8: Suggest deleting this requirement because it appears to be redundant after R6 and R7.

FAC-011-1: Applicability of this standard is unclear and confusing. It appears that the standard is intended to be applicable to the Transmission Planner (TP) and the PA (for planning horizon SOLs). Then why is it not applicable to the Transmission Operator (TOP) even though it is applicable to the RA (for operating horizon SOLs)? American Transmission Company strongly recommends including the TOP as an applicable entity for establishing operating horizon SOLs, just as .? American Transmission Company supports retaining the TP as an applicable entity for establishing planning horizon SOLs. .? American Transmission Company suggests adding a requirement similar to R3 for the Transmission Operator. Please provide the justification for including the TP and excluding the TO in the existing version of the standard. Also, please address the following apparent inconsistencies: R4.2 indicates applicability to the Transmission Operator even though the TO is not listed as an Applicable entity.

FAC-011-1, R1 & R2: Suggest explicitly indicating the applicable time horizon in each requirement as follows: in R1, "RA shall ensure that operating horizon SOLs"; and, in R2, "PA shall ensure that planning horizon SOLs."

FAC-011-1, M2: Suggest that a reasonable time frame for reporting SOLs (e.g. within 5 business days or a "mutually agreed schedule") be used, rather than "in accordance with schedules supplied by the requestors." What if the requestor's schedule is unrealistic and/or unreasonable?

FAC-012-1, M1: Should read "The Planning Authority's and *Reliability Authority's* methodology..... " --- replace Transmission Planner by Reliability Authority's.

FAC-012-M3.2: Typo --- replace "Transmission Operator" by "Transmission Planner".

FAC-012-1, M4: Suggest deleting this measure because it appears to be redundant after M2 and M3.

FAC-012-1, R2, R3 and M2, M3: Suggest that a reasonable time-frame for reporting any "changes" to the TC methodology (e.g. within 5 business days of the change, or 30 calendar days prior to the effective date of the change) be included to ensure timely dissemination of information by PA and RA.
FAC-013-1, M2: Suggest that a reasonable timeframe for reporting Transfer Capabilities (e.g. within 5 business days or a "mutually agreed schedule") be used, rather than "in accordance with schedules supplied by the requestors". What if the requestor’s schedule is unrealistic and/or unreasonable?
COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by April 03, 2005. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE AND IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

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Group Comments (Complete this page if comments are from a group.)

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<td>Contact Telephone:</td>
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<td>Phil Winston</td>
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* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.
Background Information:

The Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard was last posted for a public comment period from December 1, 2003 through January 21, 2004. The SDT received 43 sets of comments, representing 170 different individuals from 89 entities in six of the nine Industry Segments, and all NERC Regions.

While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [ ] Disagree
   Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☑ No additional changes needed
☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☑ Agree
☐ Disagree

Comments:
4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree

   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:

   Comments: FAC-010-1, section B, paragraphs R4.1 & R4.2 - Both paragraphs require that the system "demonstrate transient, dynamic, and voltage stability." These terms mean different things to different people. The terms need to be defined. The best course of action would probably be to require each RA and PA define the terms in their SOL & IROL methodology. For example, you could define instability in the following ways:
   - A generating unit pulling out of synchronism
   - Two or more generating units pulling out of synchronism
   - Generating units at two or more locations pulling out of synchronism
   - A generating unit (or units) pulling out of synchronism such that the resulting impedance swing is into the transmission system.
   - Fast or slow voltage collapse
   - Poorly damped power oscillations involving units at more than one location

   The first two should not be interconnection reliability limits. They are system limits. However, the last four should be interconnection limits.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree

   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - No additional criteria needed
   - The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - Agree
   - Disagree
   Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments:

FAC-008-1 Since M1.1 through M1.3 has the same wording as the requirements R1.1 through R1.3., consider rewriting the Measures section to make it concise and not be exactly redundant.

FAC-008-1, section D, paragraph 1.2 - The first sentence states ...within the first year that the entity commence operation. It is not clear who THE ENTITY is. Should this say: ...within the first year that the entity is required to comply? Transmission Owners, Generation Owners, and Compliance Monitors have been in operation for many years. This needs to be defined better.

FAC-009-1, section B, paragraph R2 - This paragraph should be reworded. Also, the ratings are required to be supplied according to the schedule of the requesting entity (see number 2 - Levels of Non-Compliance). There is no guarantee that the schedule will be reasonable. The wording should be ---according to a schedule agreed to among the requesting entities and the Transmission Owner/Generator Owner.---

FAC-009-1, section D, item 1.4 - to require data, not knowing the extent of the request in 5 business days may be difficult for today's very lean staffs. A more reasonable amount would be 10 business days.

FAC-010-1, section B, paragraph R4 - The requirement for the RA and PA to document their SOL methodologies is already in R1 & R2. There is no need for it to be repeated in R4. Therefore, R4 should be ---Each SOL methodology shall include a requirement that SOLs provide BES performance consistent with the following:......---

FAC-010-1, section B, paragraph R4.1 and R4.2 - These two requirements state that for pre-contingency and post-contingency states, the BES should be within their Facility Ratings and thermal ratings, voltage, etc. Its easy to understand why things need to be within their voltage and stability ratings but most devices such as transformers and transmission lines can withstand short term loadings that exceed their nameplate thermal ratings and not cause any damage to the equipment. Throughout this standard it only refers to -Facility Rating- as the interpretation of a complete line element -----transmission line plus breakers plus line traps, etc-----. Mixing of thermal ratings and facility rating gets confusing.

FAC-010-1, section C, paragraph M1 -- for the RA and PA to provide a statement that --- Facility Ratings--- shall not be exceeded makes no sense, especially in light of R4.1 and R4.2 mixing Facility Ratings and thermal ratings in the requirement. Also, how can anyone say the rating will never be exceeded? There will be events, most likely, that exceed the rating and trip the line or facility. That's what relays are for.

FAC-010-1, section C, paragraph M2.2 -- appears to be overly broad in requiring the RA provide evidence that it issued its SOL methodology to each PA and TP that models any portion of the RAs area. Since the MMWG cases models the entire east coast, does this apply to every utility in the east coast? An appropriate clarification might be: ----Each Planning Authority and Transmission Planner that has responsibility for part of the Reliability Authority’s Reliability Authority Area.----

FAC-010-1, section C, paragraph M3 - A measure M3.3 is needed which says ---Each Transmission Planner that works in the Planning Authority’s Planning Authority Area----- to be consistent with R7.3.
FAC-010-1, section D, paragraph 1.2 - The first sentence states ...within the first year that the entity commences operation. Again, it is not clear who THE ENTITY is. Should this say: ......within the first year that the entity is required to comply....?

FAC-012-1, Since M1.1 through M1.3 has the same wording as the requirements R1.1 through R1.3., consider rewriting the Measures section to make it concise and not be exactly redundant.

FAC-012-1, section B, paragraphs R2 & R3 - To make these paragraphs easier to read consider the following change: ......shall issue its Transfer Capability Methodology, and any changes to that methodology, prior to the effectiveness of such changes, to all of the following:

FAC-012-1, section B, paragraph R3.2 - This is very hard to read. It should be changed to the following: ......Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area....

FAC-012-1, section C, paragraph M3.2 - This is very hard to read. It should be changed to the following: ......Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area....

FAC-012-1, section C, paragraph M4 - This repeats the requirements of M2 and M3. Therefore it is not needed and should be deleted.

FAC-013-1, section B, paragraph R2.1 - The paragraph contains the following: ...to its adjacent Reliability Authorities, to Reliability Authorities, and.... The second use of ....to Reliability Authorities.... should be deleted.

FAC-013-1, section B, paragraph R2.1 and R2.2 - what timeframe are the TTCs to be provided? Is it yearly, monthly,etc.?

FAC-013-1, section D, item 1.4 - to require data, not knowing the extent of the request in 5 business days may be difficult for today's very lean staffs. A more reasonable amount would be 10 business days.
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by April 04, 2005. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

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Individual Commenter Information
(Complete this page for comments from one organization or individual.)

Name:  Rick Padilla
Organization:  PG&E
Telephone:  530-757-5216
Email:  rjp5@pge.com

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Page 1 of 8
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Please answer the following questions:

Definitions:

1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit T_v?
   □ Agree
   □ Disagree

   Comments: Agree with the SDT's proposed definitions for Cascading Outages. Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit T_v.

      Disagree with the definition of Contingency.

      The definition of Contingency states, The unexpected outage of a system component. A single contingency also may result in outages of multiple Facilities.

      While it is true that a single contingency also may result in outages of multiple Facilities, this reference could cause confusion with Standard 051, Table 1, which refers to Events that could result in loss of contingency elements. We suggest modifying this definition to read:

      Contingency: The unexpected outage of a system component due to an initiating event. A single initiating event also may result in outages of multiple Facilities.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed

☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☑ Agree

☐ Disagree

Comments: The technical review must be limited to the RA, PA, Transmission Planner and Transmission Operators that have a reliability need for the ratings.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:
   Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   Comments: The technical review must be limited to the RA, PA, Transmission Planner and Transmission Operators that have a reliability need for the limits.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☐ No additional criteria needed
☒ The following additional criteria are needed:

Comments: The following comments apply to both SAC-012-1 and FAC-013-1 (Please see also attached file). As written, developing the Transfer Capability methodology and establishing and communicating Transfer Capability are required without regard to whether such quantities would be used in the first instance. So, entities would have to develop the information even though the need has not been first established. In the earlier drafts, the requirements to establish and document the methodology and the transfer capabilities were in effect only if such information were requested in the first place. However, this provision was not carried over to this version. This could lead to inefficient use of resources. For example, WECC has established Path Ratings in Planning, and Operating Transfer Capabilities (OTC) in Operations and with transfer limits defined by nomograms if needed. Both the Path Ratings and the OTCs would satisfy the Requirements set forth in Standards FAC-010-1 and FAC-011-1. However, as a general practice, WECC does not use nor establish Transfer Capability between areas as defined in the NERC Glossary of Terms. We suggest reinserting the earlier provision by changing the Purpose (A.3) and the Requirement R1 in both Standards FAC-012-1 and FAC-013-1 to read:

Purpose: To ensure the determination of Transfer Capabilities that result in the reliable planning and operation of the Bulk Electric System (BES) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.

R1. The Reliability Authority and Planning Authority shall each document its current methodology used for developing its inter-regional and intra-regional Transfer Capabilities (Transfer Capability Methodology) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☒ Agree
☐ Disagree

Comments: The technical review must be limited to the RA, PA, Transmission Planner and Transmission Operators that have a reliability need for the limits.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: Please see attached file.
Standard FAC-008-1 — Facility Ratings Methodology

Page 5, Levels of non-Compliance –

Comment: To avoid confusion that an entity must address all required equipment types listed in R1.2.1 even though it is not one of the equipment types that comprises the Facility, we suggest modifying the Levels of Non-compliance: 2.1.3, 2.2 and 2.3 as highlighted below:

2.1.2 The Facility Ratings Methodology does not address one of the required equipment types that comprise a Facility.

2.2. Level 2: The Facility Ratings Methodology is missing the assumptions used to determine Facility Ratings or does not address two of the required equipment types that comprise a Facility.

2.3. Level 3: The Facility Ratings Methodology does not address three of the required equipment types that comprise a Facility.

Standard FAC-010-1 — System Operating Limits Methodology

Page 4, Requirement –

R4.3.4 states:

“To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.”

Comment: It is not clear in R4.3.4 if pre-contingency interruption of firm load is permitted in R4.3.4. We suggest adding this clarification.

Standard FAC-010-1 — System Operating Limits Methodology

Page 4, Requirements –

R5.3 requires that the Reliability Authority’s methodology and the Planning Authority’s methodology for determining SOLs, include a description along with any reliability margins applied in R5.3m which states:

“R5.3. Accuracy and level of detail of system models used to determine SOLs.”

Comment: We suggest either delete “accuracy” or define it. As written, it could mean the number of places of decimal of some quantity, or, whether the computer program is single or double precision, or some other meaning.

Standard FAC-010-1 — System Operating Limits Methodology

Page 5, Requirements –

R6 requires that the Reliability Authority issue its SOL Methodology and any changes to that methodology, to entities in R6.1
“R6.1. Each adjacent Reliability Authority and each Reliability Authority that indicated it has a reliability-related need for the methodology.”

However, in R7.1 The corresponding requirement for Planning Authority states that it is required to issues its SOL Methodology, and any change to that methodology to entities in R7.1.

“R7.1. Each adjacent Planning Authority.”

Comment: Why is the Planning Authority not required to provide its SOL methodology also to each Planning Authority that indicated it has a reliability-related need for the methodology”? In an interconnected system, SOLs set in one Planning Authority Area could impact system performance in Planning Authority Areas that are not necessarily “adjacent”.

Standard FAC-010-1 — System Operating Limits Methodology

Page 5, Measures –

M2.3 specifies that the Reliability Authority have evidence it issued its SOL Methodology, and any changes to “each Transmission Operator that operates in the Reliability Authority Area” (M2.3). However, there is no corresponding requirement in M.3 for the Planning Authority to have evidence it issued its SOL Methodology and any changes to “each Transmission Planner that works in the Planning Authority Area” as stated in R7.3.

Comment: We suggest adding M3.3:

“M3.3. Each Transmission Planner that works in the Planning Authority’s Planning Authority Area.

Standard FAC-011-1 — Establish and Communicate System Operating Limits

Page 3, Requirements; Page 4 Measures and Compliance Section –

R1, R2 and R3, Measures M1 and M2 and Compliance Section require that the Reliability Authority ensure, and that the Planning Authority and Transmission Planner establish SOLs and IROLs. However, no such requirement is placed on the Transmission Operator. Yet, on the same page, R4.2 states that:

“R4.2. The Transmission Operator shall provide its SOLs to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area.”

Comment: We suggest adding a clarifying provision to read:

“R4.2. If requested by its Reliability Authority to establish SOLs, The Transmission Operator shall provide its SOLs to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area.”

Otherwise, as written, the Transmission Operator would provide to the Reliability Authority SOLs that it has not established.

Standard FAC-011-1 — Establish and Communicate System Operating Limits
Page 3, Requirements –

R4.1 states, “the Reliability Authority shall provide its SOLs (including the subset of SOLs that are IROLs) to adjacent Reliability Authorities and Reliability Authorities who indicate a reliability-related need for those limits, and to the Transmission Operators, Transmission Service providers and Planning Authorities within its Reliability Authority Area.”

Comment: Please add Transmission Planner to the list of recipients for this information, as such information is valuable in planning the future system.

Standard FAC-012-1 — Transfer Capability Methodology and Standard FAC-013-1 — Establish and Communicate Transfer Capabilities

Transfer Capability, as defined in NERC, Glossary of Terms adopted by NERC Board of Trustees: February 8, 2005 and effective Date: April 1, 2005 states:

‘The measure of the ability of interconnected electric systems to move or transfer power in a reliable manner from one area to another over all transmission lines (or paths) between those areas under specified system conditions. The units of transfer capability are in terms of electric power, generally expressed in megawatts (MW). The transfer capability from “Area A” to “Area B” is not generally equal to the transfer capability from “Area B” to “Area A.”’

Comment:
As written, developing the Transfer Capability methodology and establishing and communicating Transfer Capability are required without regard to whether such quantities would be used in the first instance. So, entities would have to develop the information the need of which has not been first established. In the earlier drafts, the requirements to establish and document the methodology and the transfer capabilities were in effect only if such information were requested in the first place. However, this provision was not carried over to this version. This could lead to inefficient use of resources. For example, WECC has established Path Ratings in Planning, and Operating Transfer Capabilities (OTC) in Operations and with transfer limits defined by nomograms if needed. Both the Path Ratings and the OTCs would satisfy the Requirements set forth in Standards FAC-010-1 and FAC-011-1. However, as a general practice, WECC does not use nor establish Transfer Capability between areas as defined in the NERC Glossary of Terms. We suggest reinserting the earlier provision by changing the Purpose (A.3) and Requirement R1 in both Standards FAC-012-1 and FAC-013-1 to read:

“Purpose: To ensure the determination of Transfer Capabilities that result in the reliable planning and operation of the Bulk Electric System (BES) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.”

“R1. The Reliability Authority and Planning Authority shall each document its current methodology used for developing its inter-regional and intra-regional Transfer Capabilities (Transfer Capability Methodology) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.”
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Proposed Determine Facility Ratings

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Group Comments (Complete this page if comments are from a group.)

Group Name: Southern Company Generation  
Lead Contact: Roman Carter  
Contact Organization: Southern Co. Generation  
Contact Segment: 6  
Contact Telephone: 205-257-6027  
Contact Email: jrcarter@southernco.com

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The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [ ] Disagree

Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☐ The following additional criteria are needed:
  Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☐ Disagree
  Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☑ No additional changes needed
   ☐ The following additional criteria are needed:
   Comments:

   FAC-010-1, section B, paragraphs R4.1 & R4.2 - Both paragraphs require that the system "demonstrate transient, dynamic, and voltage stability."

   These terms mean different things to different people. The terms need to be defined.

   The best course of action would probably be to require each RA and PA define the terms in their SOL & IROL methodology. For example, you could define -instability- in the following ways:

   - A generating unit pulling out of synchronism
   - Two or more generating units pulling out of synchronism
   - Generating units at two or more locations pulling out of synchronism
   - A generating unit (or units) pulling out of synchronism such that the resulting impedance swing is into the transmission system.
   - Fast or slow voltage collapse
   - Poorly damped power oscillations involving units at more than one location

   The first two should not be IROLs. They are system limits. However, the last four should be IROLs.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☑ Agree
   ☐ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - ☑ No additional criteria needed
   - ☐ The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☑ Agree
   - ☐ Disagree
   Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments:

FAC-008-1, section D, paragraph 1.2 - The first sentence states ...within the first year that the entity commences operation. Should this say: ...within the first year that the entity is required to comply? Transmission Owners, Generation Owners, and Compliance Monitors have been in operation for many years. This needs to be defined better.

FAC-009-1, section B, paragraph R2 - This paragraph should be reworded. Also, the ratings are required to be supplied according to the schedule of the requesting entity (see number 2 - Levels of Non-Compliance). There is no guarantee that the schedule will be reasonable. The wording should be ---according to a schedule agreed to among the requesting entities and the Transmission Owner/Generator Owner---

FAC-009-1, section D, item 1.4 - to require data, not knowing the extent of the request in 5 business days may be difficult for today's very lean staffs. A more reasonable amount would be 10 business days.

FAC-010-1, section B, paragraph R4 - The requirement for the RA and PA to document their SOL methodologies is already in R1 & R2. There is no need for it to be repeated in R4. Therefore, R4 should be ---Each SOL methodology shall include a requirement that SOLs provide BES performance consistent with the following:------

FAC-010-1, section C, paragraph M3 - A measure M3.3 is needed which says ---Each Transmission Planner that works in the Planning Authority’s Planning Authority Area----- to be consistent with R7.3.

FAC-010-1, section D, paragraph 1.2 - The first sentence states ...within the first year that the entity commences operation. Again, it is not clear who THE ENTITY is. Should this say: ......within the first year that the entity is required to comply......?

FAC-010-1, Measurement M2.2 -- appears to be overly broad in requiring the RA provide evidence that it issued its SOL methodology to each PA and TP that models any portion of the RAs area. Since the MMWG cases models the entire east coast, does this apply to every utility in the east coast? An appropriate clarification might be: ----Each Planning Authority and Transmission Planner that has responsibility for part of the Reliability Authority’s Reliability Authority Area.----

FAC-012-1, section B, paragraphs R2 & R3 - To make these paragraphs easier to read consider the following change: ......shall issue its Transfer Capability Methodology, and any changes to that methodology, prior to the effectiveness of such changes, to all of the following:

FAC-012-1, section B, paragraph R3.2 - This is very hard to read. It should be changed to the following: ......Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area....

FAC-012-1, section C, paragraph M3.2 - This is very hard to read. It should be changed to the following: ......Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area....

FAC-012-1, section C, paragraph M4 - This repeats the requirements of M2 and M3. Therefore it is not needed and should be deleted.
FAC-013-1, section B, paragraph R2.1 - The paragraph contains the following: …to its adjacent Reliability Authorities, to Reliability Authorities, and.... The second use of …to Reliability Authorities…. should be deleted.
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<td>Organization:</td>
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<td>Contact Telephone:</td>
<td>(360) 418-2322</td>
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<tr>
<td>Contact Email:</td>
<td><a href="mailto:mrviles@bpa.gov">mrviles@bpa.gov</a></td>
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Comments: WECC ensures the safe and reliable operation of the Western Interconnection through the determination of SOLs. We do not presently utilize or establish TC as other regions may. R1 of this standard states that the RA and PA "shall each document its current (TC) methodology". The standard should be clear that if TC is not used, an entity is not required to develop and document TC Methodology.

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Individual Commenter Information

(Complete this page for comments from one organization or individual.)

Name: Kenneth A. Goldsmith
Organization: Alliant Energy
Telephone: 319-786-4167
Email: kengoldsmith@alliantenergy.com

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* If more than one Region or Segment applies, indicate the best fit for the purpose of these comments. Regional acronyms and segment numbers are shown on prior page.
Background Information:

The Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard was last posted for a public comment period from December 1, 2003 through January 21, 2004. The SDT received 43 sets of comments, representing 170 different individuals from 89 entities in six of the nine Industry Segments, and all NERC Regions.

While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [x] Disagree

   Comments: We believe that the definition as defined may be too stringent. The original definition may have been relatively vague, however, it was done to allow flexibility. What could be used is to have the local area defined as the control area/balancing authority. In this way if an outage propagates beyond the CA/BA boundary it would be considered cascading.
2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

- No additional changes needed
- The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

- Agree
- Disagree

Comments: The philosophy in the past has been that the Transmission and Generation Owners, as owners of the physical assets would not use ratings that would damage the assets, nor have ratings so low as to curtail their own activity as well as others in the industry.
4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree

   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☐ No additional changes needed
   ☑ The following additional criteria are needed:

   Comments: We believe the Planning Horizon should be for periods 1 year and beyond, and the Operating Horizon would be less than one year, to be consistent with other standards.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☐ Agree
   ☑ Disagree

   Comments: We believe the 30 day period should be deleted from the standard. It should be enough to have the processes open for inspection.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - No additional criteria needed
   - The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - Agree
   - Disagree
     Comments: As in Question #6, we believe the 30 day requirement should be removed.
9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: Emergency Ratings should be included in the standard, along with the language which defines the requirements for emergency ratings.
COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by April 03, 2005. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE AND IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

DO:  
Do enter text only, with no formatting or styles added.  
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Do not submit a response in an unprotected copy of this form.

Individual Commenter Information
(Complete this page for comments from one organization or individual.)

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<th>Name:</th>
<th>P. D. Henderson / Khaqan Khan</th>
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<tr>
<td>Organization:</td>
<td>Independent electricity system Operator (IESO), Ontario</td>
</tr>
<tr>
<td>Telephone:</td>
<td>905-855-6258</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:Peter.Henderson@ieso.ca">Peter.Henderson@ieso.ca</a></td>
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Page 1 of 10
Group Comments (Complete this page if comments are from a group.)

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Lead Contact:
Contact Organization:
Contact Segment:
Contact Telephone:
Contact Email:

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Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

Background Information:

The Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard was last posted for a public comment period from December 1, 2003 through January 21, 2004. The SDT received 43 sets of comments, representing 170 different individuals from 89 entities in six of the nine Industry Segments, and all NERC Regions.

While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_V$?
   - Agree
   - ☑ Disagree

Comments:
   The IESO disagrees with the revised definitions of Cascading Outages, Contingency and IROL, and recommends the use of original definitions as stated in the Version 0 Glossary for consistency purposes.

   NERC definitions should be coordinated and revised by one body/entity responsible for that definition (such as Director, NERC Standards)
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:
Comments:

Comments on FAC-008-1

The designations that have recently been developed and presented to the Standing Committees regarding the Functional Model, once approved, should be incorporated and any further approved changes should continue to be coordinated/incorporated, as they are revised.

The requirement R1.3 should be consistent with and based on credible and recognized standards/criteria (such as IEEE, ANSI etc) for purposes of "methodology" that could be used as guidelines.

In section C the measures M1.2 and M1.2.1 are exact repetition/copy of requirements R 1.2 and R1.2.1. We recommend that R1.2/R1.2.1 should be revised to reflect these as specific measures. Moreover, there is a need to add a requirement and associated measure "to change methodology", if the technical review results show that it does not meet the criteria and/or methodology specified on R1.3.

We are of the opinion that the measures M2 and M3 have no merit if there is no requirement to follow a credible methodology. Accordingly, this further necessitates the need for a consistent recognized standard/criterion re: "methodology".

Comments on Facility Ratings Standard FAC-009-1

Section D -1.3 mentions about retention of documentation for 12 months. What would be duration of retention of non-compliance/audit data for compliance monitor?

In general, many of the measures are written more like requirements. Measures should be phrased and specified in a manner that they provide evidence for meeting the requirements.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☒ Agree
☐ Disagree

Comments: The standard in its present form is very vague. For example, there is no requirement for an owner to use an acceptable methodology. In such a scenario, the outcome could be a set of ratings that are not useful for real operation and/or planning. The requirement for peer review would therefore not be effective. It is worth noting that FERC also recommends that a
single line methodology and criteria be identified. Therefore, this necessitates the need for a consistent recognized standard/criteria for purposes of "methodology".

In the absence of such a recognized/consistent methodology, there is a possibility that the ratings could be artificially set so low, as to influence dispatches and flows on other circuits.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?

☐ Agree
☒ Disagree

Comments: The FAC and IROL standards need to be closely coordinated in order to ensure that no key component requirement is missed.

The SAR states that this is a new standard. The IESO is concerned that the Version 1 standards "piecemeal approach" to replace standards that appear in Version 0 may result in confusion by the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an Implementation Plan be posted with these new Standards, as required under NERC standards process to ensure that the necessary coordination and planning has been done to either replace/retire the pertinent Version 0 standards or incremental requirements added/contained therein.

The IESO is of the opinion that version 0 (now called Reliability Standards) should be considered as a baseline set of standards and any applicable incremental changes/additions should be made to base standards to develop a set of new standards, as and where required.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments: See the comments in question #4 above.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?

☐ Agree
☒ Disagree

Comments: See comments in question #3 above.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

- ☑ No additional criteria needed
- ☐ The following additional criteria are needed:

  Comments: We question the need for multiple standards such as Transfer Capability standard, existing Total Transfer Capability standard and/or SOL related standards re: SOL methodology…establishment. Would this raise questions of redundancies and duplications? This issue needs to be clarified.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

- ☑ Agree
- ☐ Disagree

  Comments: The redundancies indicated in comments of question #7 above need to be addressed first before a technical review could be made.
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments:

In FAC-011-1 Requirement 4.1.1 change parenthetical to read (or group of facilities and or their associated equipment such as stabilizers and AVRs)

With regards to Requirements R2 and R4.2 of FAC-011-1 standard there are again concerns with the Planning Authority being involved with the determination of the SOL and IROL limits. According to the Functional Model the Transmission Operator should develop the SOL limits not the Planning Authority. Is this intentional? This needs to be clarified.

The SDT should be commended for requiring the distribution of study results in FAC-011-1 (R4) to those entities that have indicated a "reliability related need". However it is not apparent how to determine what a "reliability related need" is. How would an entity know if they are compliant or not if an the entity refuses a request based on another entities perception of "reliability need" that differs from the limit holder's perception of "reliability need". The bottom line is that a clear or specific criterion is missing.

The real requirement to distribute should be defined in explicit terms. That is, those entities in the host Area that perform the Reliability Assessments in planning and real time for the facilities, along with those similar entities in adjoining or other areas that operate facilities that are critical to the limit. (ie move R4.2, R4.3 and R4.4 in front of R4.1).

R4.1.1 does not fully capture the Boundary conditions concept. In addition to the identification and status of the associated Facility critical to the limit, the operators need to be aware of those components within a Facility that are critical to the limit and their required status. If the term "Facility" is applied as defined in FAC-008-1 (a "set of electrical equipment that operates as a single BES element") then by definition, it is quite possible that critical elements can be inadvertently excluded from this knowledge base. For example, it is possible that a generator could be in service with impaired operation of the AVR or stabilizer. If it is the operation of the AVR or Stabilizer that is critical to the limit, and only the generator is deemed critical then it is possible to have a limit in effect that is invalid.

As part of the Boundary conditions, the operators also need to be aware of the electrical area to which the limits apply, any pertinent Minimum and Maximum values that studies indicate for the limits to be valid, and as stated above the status of auxiliaries within any facility that are critical to the limit.

The standard FAC-010-1 Requirement R2 states as follows: "The PA shall document its SOL methodology for use in developing SOL's within its Planning authority Area. The PA's SOL Methodology shall be applicable for developing SOLs used in the planning horizon. The PA's SOL Methodology shall state that SOLs shall not exceed associated facility ratings".

It is in above context that we feel that there are inconsistencies pertaining to FAC-010-1 and TPL-003-0, resulting in confusion. As per requirement R2 of FAC-010-1 requiring SOL Methodology to be applicable for developing SOL's in planning horizon, questions and concerns arise:

- The recently adopted Version 0 Standards - specifically Standard TPL-003-0, “System Performance Following Loss of Two or More BES Elements” - include Category C
contingencies. Adoption of FAC-010-1 & 011 in present form without considering these contingencies would be inconsistent with Standard TPL-003-0 and a weakening of existing NERC standards.

- To state in this standard that Regions may have more stringent standards covering Category C contingencies does not suffice – some Areas reliability could be impacted if a neighboring system operates to the weaker NERC criteria.

- There is a curiosity as to why NERC - if it maintains the principle that Regions may have more stringent criteria than NERC criteria – singles out just one section of this Standard in which to apply the principle, rather than stating that the principle is applicable to the entire standard.

The U.S. - Canada Power System Outage TF Report's Recommendation #25 states: “A strong transmission system designed and operated in accordance with weakened criteria would be disastrous. Instead, a concerted effort should be undertaken to determine if existing reliability criteria should be strengthened…Only through strong standards and careful engineering can unacceptable power failures like August 14, 2003 be avoided in the future.” We do not believe that Draft 3 meets this principle.

The IESO is concerned that the Version 1 standards' "piecemeal approach" to replace standards that appear in Version 0 may result in confusion within the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an Implementation Plan be posted with each new Standard to ensure that the necessary coordination and planning has been done to replace/retire the pertinent Version 0 standards or incremental requirements contained/added therein.

The IESO is of the opinion that version 0 (now called Reliability Standards) should be considered as a baseline set of standards and any applicable incremental changes/additions should be made to base standards to develop a set of new standards, as and where required.

Based on our comments, and especially in the absence of a clear implementation plan, we are of the opinion that the FAC standard(s) is not acceptable and ready for ballot.

The IESO also supports the comments submitted by ISO/RTO SRC.
This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by April 03, 2005. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

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**Individual Commenter Information**

(Complete this page for comments from one organization or individual.)

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<tr>
<th>Name:</th>
<th>Eric Senkowicz on behalf of FRCC</th>
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<tr>
<td>Organization:</td>
<td>FRCC</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(813) 289-5644</td>
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<td>Email:</td>
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Group Comments (Complete this page if comments are from a group.)

Group Name: FRCC
Lead Contact: Eric Senkowicz
Contact Organization: FRCC
Contact Segment: 2
Contact Telephone: 813-289-5644
Contact Email: erics@frcc.com

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<td>Alan Gale</td>
<td>City of Tallahassee</td>
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<td>Florida Power and Light</td>
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<td>Linda Campbell</td>
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Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit T_v?
   - Agree
   - Disagree

   Comments: Although we could accept the definition for "cascading outages" and "IROLs", and interpret it conservatively, under the revised definition, a separation of the FRCC from the Interconnection would not be considered an IROL since the Special Protection Systems and schemes protecting the Region are planned and designed to operate under controlled separation scenarios. Is this an intended or unforeseen result of the revised definitions?

   In reviewing the existing version zero Glossary of terms and the proposed definitions of these standards, it appears that there is an opportunity for consolidation and clarification of the NERC standards related terminology when defining system elements.

   A uniform mapping of nomenclature may be in order as there appears to be some ambiguity and inconsistency when integrating and defining new terminology with respect to existing glossary terminology. A suggested uniform nomenclature could be established, i.e. "Bulk Electric System" is made up of interconnected "Systems". "Systems are made up of interconnected "Facilities". "Facilities" are made up of interconnected "Components". The term "Element" is repetitious to the term "Facility" and may create confusion in development of other standards. For simplicity if this type of terminology standardization was achieved it may help industry understanding of standards language.

   Some examples of ambiguity in the proposed definitions are:

   New definition for "Equipment Rating" uses "individual equipment" in its definition, along with the new definition for "Facility" which uses "electrical equipment" in its definition. Although straightforward, the new terminology does not integrate into the existing definition for "Bulk Electric System Element" which uses terminology like "electrical generation resources" and "elements" which in its definition refers to "components". The eventual conclusion can be made that "components" are individual pieces of "electrical equipment", but why not avoid the confusion by using one set of terminology and consistently applying to new standards and new standards definitions?

   A second example of potential confusion is in the definition of "Cascading Outages". By defining using "loss of system elements" we introduce new terminology which is defined in the glossary under definitions for "System" and "Element" yet the intention of the statement could be achieved using the term "facility", which is what this standard has in its title.

   A third example is in the definition of "Contingency". The terminology of "system components" is once again, new terminology for which "component" is not defined in the NERC glossary. Is there an intended distinction in the terminology selection, or would "unexpected outage of a facility" achieve the intended definition?

   Overall the variations and interchangeable use of terms like "facility", "elements", "electrical equipment", "system components", "system elements", "individual equipment", "components" and "Bulk Electric System Elements" introduces unnecessary ambiguity in the standards process and language. These comments may seem trivial, but are intended to reinforce the fact that these standards are being written for our industry and should be as straightforward and "clear and unambiguous" as possible. We must remember that many of the individuals reading and being expected to comply with these standards may not be as fluent with "NERC" standards language as those of us who are more involved with their development.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☐ The following additional criteria are needed:

Comments: Selection of criteria seems appropriate, except for R1.3.1 which addresses “ratings provided by equipment suppliers”. This is not typical, since equipment ratings are typically provided by equipment manufacturers which design the equipment and not suppliers (with the understanding that in some cases they may be the same).

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☐ Disagree

Comments: Is it intended that Transmission Operators and Transmission Planners do not have the ability to formally comment on Facility Ratings Methodology? Requirement R3 provides for written comments from the RAs and PAs only. TOs and TPs may be better qualified to comment on local system conditions in their areas and therefore, should be able to provide written comments and comment resolution from Transmission Owners and Generator Owners connecting facilities to TOs and TPs local systems.

The SDT may have to modify these standards to incorporate recommendations of the "Functional Model Reliability Standards Coordination Task Force (FMRSCTF)" report and the resulting SARs generated by their recommendations. Recommendations specifically address roles of the transmission operator and functional authority being delegated to a local area "transmission authority".
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☐ No additional changes needed
   ☑ The following additional criteria are needed:
   Comments: See response to question #9.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☐ Agree
   ☑ Disagree
   Comments: See response to question #9 (Integration of the "Transmission Authority").
7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☐ No additional criteria needed
☒ The following additional criteria are needed:

Comments: See response to question #9.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☐ Agree
☒ Disagree

Comments: See response to question #9.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: The SDT may have to modify these standards to incorporate recommendations of the "Functional Model Reliability Standards Coordination Task Force (FMRSCTF)" report and the resulting SARs generated by their recommendations. Re-alignment of functional roles and responsibilities (changing of names) makes commenting on accountabilities difficult at this time.

Development of this standard should closely monitor activities and actions generated by the newly developed Functional Model Working Group Plus (FMWG+).

Additionally we would propose some general comments and formatting suggestions.

In general, "purpose" statements are vague and identical for multiple standards. Standards are setting specific guidelines and criteria and as such, should have specific, unique and descriptive "purpose" statements.

It may simplify and shorten the standards if instead of duplicating the language of the "Requirements" section in the "Measures" section, the "Measures" section simply refers back to a specific "Requirements" section. For example, in standard FAC-008-1, M1 could be written as follows:

M1. The Transmission Owner or Generator Owner shall have a documented Facility Ratings Methodology that includes all the requirements and sub-requirements of section R1.

The above comment is intended in general terms and should be applied wherever verbatim duplication occurs, within any standard.

An additional general formatting comment applicable throughout several sections of the standards: It would add clarity if the SDT broke out items into numbered sub-sections where multiple "requirements", "measures" and "compliance" elements are listed under one section. For example, in FAC-010-1, section R1, the first sentence would be drafted as R1 and each of the following sentences could be listed under sub-sections R1.1 through R1.3. In FAC-008-1, compliance section 1.3 could be broken out further, into sub-section 1.3.1 through 1.3.3.

Specific comments on Compliance Sections:

FAC-008-1 refers to CM "may also conduct an on-site audit every nine years..". The use of terms like "may" and "complaint" are vague, and should not be used in a compliance section. What is the RRO required or not required to do based on time and "complaint"? Who complains, is it a formal complaint process, initiated by whom?

Overall, the standards seem to be focusing into reasonable and prudent industry consensus requirements, yet the overall FMRSCTF report recommendations will definitely impact the "Applicability" sections along with some of the "Requirements" and "Measures" sections. These standards will require some further refinement and aligning and therefore should not become "enforceable" standards without additional clarification.
COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by **April 04, 2005**. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

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- Do use punctuation and capitalization as needed (except quotations).
- Do use more than one form if responses do not fit in the spaces provided.
- Do submit any formatted text or markups in a separate WORD file.

**DO NOT:**
- Do not insert tabs or paragraph returns in any data field.
- Do not use numbering or bullets in any data field.
- Do not use quotation marks in any data field.
- Do not submit a response in an unprotected copy of this form.

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(Complete this page for comments from one organization or individual.)
Group Comments (Complete this page if comments are from a group.)

Group Name:  
Lead Contact:  Chifong Thomas  
Contact Organization:  Pacific Gas and Electric Co  
Contact Segment:  1  
Contact Telephone:  (415) 973-7646  
Contact Email:  clt7@pge.com

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<td>Ben Morris</td>
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Background Information:

The Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard was last posted for a public comment period from December 1, 2003 through January 21, 2004. The SDT received 43 sets of comments, representing 170 different individuals from 89 entities in six of the nine Industry Segments, and all NERC Regions.

While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?

☐ Agree  
☐ Disagree

Comments: Agree with the SDT's proposed definitions for Cascading Outages. Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$.

Disagree with the definition of Contingency.

The definition of Contingency states, The unexpected outage of a system component. A single contingency also may result in outages of multiple Facilities.

While it is true that a single contingency also may result in outages of multiple Facilities, this reference could cause confusion with Standard 051, Table 1, which refers to Events that could result in loss of contingency elements. We suggest modifying this definition to read:

Contingency: The unexpected outage of a system component due to an initiating event. A single initiating event also may result in outages of multiple Facilities.
2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☐ Disagree

Comments: The technical review must be limited to the RA, PA, Transmission Planner and Transmission Operators that have a reliability need for the ratings.
4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☑ No additional changes needed
   ☐ The following additional criteria are needed:
   Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☑ Agree
   ☐ Disagree
   Comments: The technical review must be limited to the RA, PA, Transmission Planner and Transmission Operators that have a reliability need for the limits.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   
   ☐ No additional criteria needed
   ☑ The following additional criteria are needed:

   Comments: The following comments apply to both SAC-012-1 and FAC-013-1 (Please see also attached file). As written, developing the Transfer Capability methodology and establishing and communicating Transfer Capability are required without regard to whether such quantities would be used in the first instance. So, entities would have to develop the information the need of which has not been first established. In the earlier drafts, the requirements to establish and document the methodology and the transfer capabilities were in effect only if such information were requested in the first place. However, this provision was not carried over to this version. This could lead to inefficient use of resources. For example, WECC has established Path Ratings in Planning, and Operating Transfer Capabilities (OTC) in Operations and with transfer limits defined by nomograms if needed. Both the Path Ratings and the OTCs would satisfy the Requirements set forth in Standards FAC-010-1 and FAC-011-1. However, as a general practice, WECC does not use nor establish Transfer Capability between areas as defined in the NERC Glossary of Terms. We suggest reinserting the earlier provision by changing the Purpose (A.3) and the Requirement R1 in both Standards FAC-012-1 and FAC-013-1 to read:

   Purpose: To ensure the determination of Transfer Capabilities that result in the reliable planning and operation of the Bulk Electric System (BES) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.

   R1. The Reliability Authority and Planning Authority shall each document its current methodology used for developing its inter-regional and intra-regional Transfer Capabilities (Transfer Capability Methodology) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

   ☑ Agree
   ☐ Disagree

   Comments: The technical review must be limited to the RA, PA, Transmission Planner and Transmission Operators that have a reliability need for the limits.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: Please see attached file.
Standard FAC-008-1 — Facility Ratings Methodology

Page 5, Levels of non-Compliance –

Comment: To avoid confusion that en entity must address all required equipment types listed in R1.2.1 even though it is not one of the equipment types that comprises the Facility, we suggest modifying the Levels of Non-compliance: 2.1.3, 2.2 and 2.3 as highlighted below:

2.1.2 The Facility Ratings Methodology does not address one of the required equipment types that comprise a Facility.

2.2. Level 2: The Facility Ratings Methodology is missing the assumptions used to determine Facility Ratings or does not address two of the required equipment types that comprise a Facility.

2.3. Level 3: The Facility Ratings Methodology does not address three of the required equipment types that comprise a Facility.

Standard FAC-010-1 — System Operating Limits Methodology
Page 4, Requirement –

R4.3.4 states:

“To prepare for the next Contingency, system adjustments may be made, including changes to generation, uses of the transmission system, and the transmission system topology.”

Comment: It is not clear in R4.3.4 if pre-contingency interruption of firm load is permitted in R4.3.4. We suggest adding this clarification.

Standard FAC-010-1 — System Operating Limits Methodology
Page 4, Requirements –

R5.3 requires that the Reliability Authority’s methodology and the Planning Authority’s methodology for determining SOLs, include a description along with any reliability margins applied in R5.3m which states:

“R5.3. Accuracy and level of detail of system models used to determine SOLs.”

Comment: We suggest either delete “accuracy” or define it. As written, it could mean the number of places of decimal of some quantity, or, whether the computer program is single or double precision, or some other meaning.

Standard FAC-010-1 — System Operating Limits Methodology
Page 5, Requirements –

R6 requires that the Reliability Authority issue its SOL Methodology and any changes to that methodology, to entities in R6.1
“R6.1. Each adjacent Reliability Authority and each Reliability Authority that indicated it has a reliability-related need for the methodology.”
However, in R7.1 The corresponding requirement for Planning Authority states that it is required to issues its SOL Methodology, and any change to that methodology to entities in R7.1.

“R7.1. Each adjacent Planning Authority.”

**Comment:** Why is the Planning Authority not required to provide its SOL methodology also to each Planning Authority that indicated it has a reliability-related need for the methodology”? In an interconnected system, SOLs set in one Planning Authority Area could impact system performance in Planning Authority Areas that are not necessarily “adjacent”.

**Standard FAC-010-1 — System Operating Limits Methodology**

**Page 5, Measures –**

M2.3 specifies that the Reliability Authority have evidence it issued its SOL Methodology, and any changes to “each Transmission Operator that operates in the Reliability Authority Area” (M2.3). However, there is no corresponding requirement in M.3 for the Planning Authority to have evidence it issued its SOL Methodology and any changes to “each Transmission Planner that works in the Planning Authority Area” as stated in R7.3.

**Comment:** We suggest adding M3.3:

“M3.3. Each Transmission Planner that works in the Planning Authority’s Planning Authority Area.

**Standard FAC-011-1 — Establish and Communicate System Operating Limits**

**Page 3, Requirements; Page 4 Measures and Compliance Section –**

R1, R2 and R3, Measures M1 and M2 and Compliance Section require that the Reliability Authority ensure, and that the Planning Authority and Transmission Planner establish SOLs and IROLs. However, no such requirement is placed on the Transmission Operator. Yet, on the same page, R4.2 states that:

“R4.2. The Transmission Operator shall provide its SOLs to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area.”

**Comment:** We suggest adding a clarifying provision to read:

“R4.2. If requested by its Reliability Authority to establish SOLs, The Transmission Operator shall provide its SOLs to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area.”

Otherwise, as written, the Transmission Operator would provide to the Reliability Authority SOLs that it has not established.

**Standard FAC-011-1 — Establish and Communicate System Operating Limits**
Page 3, Requirements –

R4.1 states, “the Reliability Authority shall provide its SOLs (including the subset of SOLs that are IROLs) to adjacent Reliability Authorities and Reliability Authorities who indicate a reliability-related need for those limits, and to the Transmission Operators, Transmission Service providers and Planning Authorities within its Reliability Authority Area.”

**Comment:** Please add Transmission Planner to the list of recipients for this information, as such information is valuable in planning the future system.

**Standard FAC-012-1 — Transfer Capability Methodology and Standard FAC-013-1 — Establish and Communicate Transfer Capabilities**

Transfer Capability, as defined in NERC, Glossary of Terms adopted by NERC Board of Trustees: February 8, 2005 and effective Date: April 1, 2005 states:

‘The measure of the ability of interconnected electric systems to move or transfer power in a reliable manner from one area to another over all transmission lines (or paths) between those areas under specified system conditions. The units of transfer capability are in terms of electric power, generally expressed in megawatts (MW). The transfer capability from “Area A” to “Area B” is not generally equal to the transfer capability from “Area B” to “Area A.”’

**Comment:**
As written, developing the Transfer Capability methodology and establishing and communicating Transfer Capability are required without regard to whether such quantities would be used in the first instance. So, entities would have to develop the information the need of which has not been first established. In the earlier drafts, the requirements to establish and document the methodology and the transfer capabilities were in effect only if such information were requested in the first place. However, this provision was not carried over to this version. This could lead to inefficient use of resources. For example, WECC has established Path Ratings in Planning, and Operating Transfer Capabilities (OTC) in Operations and with transfer limits defined by nomograms if needed. Both the Path Ratings and the OTCs would satisfy the Requirements set forth in Standards FAC-010-1 and FAC-011-1. However, as a general practice, WECC does not use nor establish Transfer Capability between areas as defined in the NERC Glossary of Terms. We suggest reinserting the earlier provision by changing the Purpose (A.3) and Requirement R1 in both Standards FAC-012-1 and FAC-013-1 to read:

**“Purpose:** To ensure the determination of Transfer Capabilities that result in the reliable planning and operation of the Bulk Electric System (BES) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.”

**“R1.** The Reliability Authority and Planning Authority shall each document its current methodology used for developing its inter-regional and intra-regional Transfer Capabilities (Transfer Capability Methodology) if requested by Reliability Authority, Planning Authority, Transmission Planner or Transmission Operators that have a reliability need for the Transfer Capabilities.”
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While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - X Disagree

Comments: The SES is a standing committee of the NERC Planning Committee. Among other activities, the SES is charged with reviewing and commenting on NERC-proposed Standard Authorization Requests and Reliability Standards as to their potential impact on electric system planning and analysis methodologies and practices. The SES commends and supports the SDT in their effort in drafting the proposed standards and offers the following comments:

   The SES recommends the definition of Cascading Outages be revised to read: The uncontrolled and unplanned successive loss of system elements triggered by an incident that leads to loss of load and/or generation.

   The SES also has concerns over the revised definition of Contingency proposed in FAC-010-1. The SES poses the following question: Is the definition being proposed in FAC-010-1 intended to replace the definition of Contingency provided in the Version 0 standards recently adopted? If not, does the SDT believe having two definitions of Contingency may lead to confusion? And if so, has the SDT completed a comprehensive analysis of any impacts, changes, or conflicts that may make this new definition incompatible with any provision of the Version 0 standards?

   Without regard to the above statement, the SES believes the proposed definition for Contingency in FAC-010-1 is confusing. The plain reading of the definition appears to state that a single contingency may also result in a multiple contingency. As a result, the SES recommends the definition of Contingency remain as adopted in the Version 0 standards.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?
   - No additional changes needed
   - The following additional criteria are needed:

   Comments:
   
   While the SES believes this standard should not mandate a Transmission Owner (TO) or Generation Owner (GO) to develop emergency ratings; we do feel it appropriate to include a requirement for any assumptions used for the development of emergency ratings; if used, to be addressed in section R1.3. This could be accomplished by revising R1.3.4 to read: Any other assumptions including those for emergency ratings, if appropriate.

   In section D 2.1.2; 2.2; and 2.3: The SES recommends further clarification as to which equipment types are being referenced. It may be assumed, the equipment types are intended to be the equipment types referenced in R1.2.1; however, the SES would like the SDT to specifically note the equipment types or provide a reference to R1.2.1.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?
   - Agree
   - Disagree

   Comments: The SES does not agree with the proposal for technical reviews as currently written. While the SES agrees and supports the requirement that TOs and GOs make available any rating methodology developed to other appropriate entities and also supports the obligation to respond to requests for clarification; we do not believe that these entities should be able to request changes or that the TO or GO must explain why the methodology will not be changed. The TO or GO is by definition, the owner of the asset; and as such, is the entity that has a fiduciary responsibility to, the asset owner's shareholders. This responsibility includes (among others) setting the ratings such that warranties and employee/public safety are protected as well as the asset itself is preserved and operated as intended. The TO or GO should not have to justify their respective methodologies to other entities that may have other motivations, such as seeing transfer limits increased for example. However, if the SDT and industry feel that a technical review is necessary, then the reliability region and NERC would be the appropriate entities to conduct such a review a part of a compliance process. In addition, the SES believes the 30 day period to respond to any comments could potentially place a significant burden on the TO or GO. The SES recommends this requirement be extended to 60 days.

   D1.2: The SES believes the requirement to self-certify every three years implies a requirement to keep the methodology document(s) up-to-date; yet this is not clearly stated. The SES recommends self-certification be required annually. The SES would also like the SDT to clarify the requirement that the Compliance Monitor...may also conduct an on-site audit cycle once every nine years. The use of the word--may--implies that the audit may or even may not be completed. The SES believes that have a rating methodology is a fundamental element of Good Utility Practice and therefore recommends this requirement be revised to read: The Compliance Monitor shall conduct an on-site audit once every five years and an investigation upon complaint to assess performance.

FAC-009-1
CM2: The SDT should provide clarification as to what is meant by...as scheduled by the requesting entities. The TO or GO will generally develop rating data for new facilities when it becomes known, and re-affirm it as built (See Comment on Question 9). Similarly, data for existing equipment is revised when modifications/reratings, etc. is done. All ratings are normally reaffirmed annually with model building processes. Additionally, in the example where the TO and Transmission Planner (TP) are the same entity, what will constitute evidence that the data was provided?
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree

   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:

   Comments: The following comments refer to FAC-010-1:

   R2: The SES recommends the SDT clarify the criteria to be used to develop the SOLs.

   R3: Allows the planning and operating horizons to be set by the Reliability Authority (RA) and Planning Authority (PA) at their discretion. The SES recommends the SDT identify and define the planning horizon as one year and beyond.

   R4: The SES requires some clarification with regards to R4. Planners are required to ensure the system meets the performance requirements set forth in Table 1 of the Version 0 planning standards. Requirements R4.2.1 - R4.2.3 fall short of compliance with Table 1. As a result, any SOLs developed based on Table 1, may not be compatible with the operating SOLs.

   R4.3.2: The SES recommend the SDT delete or further explain in more detail the requirement...or if the real time operating conditions are more adverse than anticipated in the corresponding studies. The SES's concern is that the methodology developed is dealing with studies to determine SOLs by defining an acceptable response. Any real-time operating conditions are not known.

   D1.4: The SES recommends changing 5 business days to 15 business days. This increase in the number of days makes the compliance request typical with other NERC compliance requirements. (See FAC-008-1, BR2). This recommendation shall apply throughout our comments on these standards.

   D2.1.3: The SES recommends changing...methodology did not address evaluation... to ...methodology did not address a requirement for evaluation.

   D3.1.1 and D3.1.2: Same comment as for D2.1.3.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree

   Comments: In general, the SES would have the SDT refer to our comments in Question #3 regarding the technical review of methodologies.
In addition, the SES offers the following comments:

FAC-011-1

R4: The SDT should clarify what is meant by the intent of …schedule for delivery of those limits.

R4.2: Previous to R4.2, the Transmission Operator (TOp) is not required to calculate SOLs. Therefore, the SES recommends the deletion of R4.2 or provide further clarification as to what responsibility the TOp has with respect to developing SOLs.

D1.4: Increase 5 days to 15 days.

D2.2.2: The proposed standard reads: Some, but not all SOLs were provided in accordance with their respective schedules. The SES recommends the SDT clarify and further define--some--so as to make this requirement measurable and above individual interpretation. Also the SES would like to see additional definition of the term--schedules- as discussed in R4 above.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - [X] No additional criteria needed
   - [ ] The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - [ ] Agree
   - [X] Disagree
     Comments: In general, the SES would have the SDT refer to our comments in Question #3 regarding the technical review of methodologies.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: Once again, the SES would like to commend and thank the SDT for their effort and work in drafting this important standard and offers the following final comments:

FAC-012-1

R2.2 and M2.2: The SES questions how is the RA or the PA to know which specific entities may be modeling any portion of their respective areas. The SES recommends revising this to require distribution of methodologies to entities other than those adjacent to the RA or PA, upon request. This same comment should be considered throughout these standards where appropriate.

CM1: The TP does not have the requirement to have a methodology document. SES assumes the SDT meant Reliability Authority instead based on the context of the standard. The SES recommends revising M1 accordingly.

D2.1.1; D2.2; and D2.3: The SES recommends the SDT clarify what is specifically being referenced by the phrase...statements or descriptions.

FAC-013-1

R2.1: The SES believes there is a typo in R2.1. We recommend the phrase...to Reliability Authorities,...be deleted as it is confusing and redundant.

CM2: The SES offers the same comments as for other standards regarding the need to clarify the phrase...schedules supplied by the requestor...

D1.4: The SES recommends changing 5 business days to 15 business days as previously discussed.

D2.2: The SES recommends the SDT clarify and further define the term--some--as to make it measurable.
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by **April 04, 2005**. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE AND IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

**DO:**
- Do enter text only, with no formatting or styles added.
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**Individual Commenter Information**

(Complete this page for comments from one organization or individual.)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Carissa P. Sedlacek</th>
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</thead>
<tbody>
<tr>
<td>Telephone:</td>
<td>413-540-4234</td>
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<tr>
<td>Email:</td>
<td><a href="mailto:csedlacek@iso-ne.com">csedlacek@iso-ne.com</a></td>
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**NERC Region**

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Group Comments (Complete this page if comments are from a group.)

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Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit T_v?
   - [ ] Agree
   - [ ] Disagree

Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

   − Comments: With regard to the following definition: "Equipment Rating: The maximum and minimum voltage, current, frequency, real, and reactive power flows on individual equipment under steady state, short-circuit and transient conditions, as permitted or assigned by the equipment owner" ISO-NE System Planning questions the requirements for short circuit (SC) and transient conditions as related to FAC-008-1 section B.R1.1. Specifically what equipment should be rated under the SC and transient rating definition and how should it be rated under this definition?

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☒ Agree
☐ Disagree

Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - □ Agree
   - □ Disagree
   - Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - □ No additional changes needed
   - □ The following additional criteria are needed:
   - Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - □ Agree
   - □ Disagree
   - Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - [ ] No additional criteria needed
   - [x] The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - [ ] Agree
   - [ ] Disagree
     Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

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### Individual Commenter Information

(Complete this page for comments from one organization or individual.)

**Name:** John Blazekovich  
**Organization:** Exelon Corporation  
**Telephone:** 630-691-4777  
**Email:** john.blazekovich@exeloncorp.com

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Page 1 of 8
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   - Agree
   - Disagree
   Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?
   - [ ] No additional changes needed
   - [x] The following additional criteria are needed:
     Comments: Specify that for generators that a Pmax, Pmin and reactive capability must be provided.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?
   - [x] Agree
   - [ ] Disagree
   Comments:
4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:
   Comments: In the definition of Pre-Contingency State, clarify what is meant by bring the system back to normal. Does this mean that all loadings be within the normal ratings?

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☐ No additional criteria needed

☒ The following additional criteria are needed:

Comments: In section R1.3 the following items should be added for description in the methodology: Source and sink points used including a discussion of exclusions. Distribution factor cutoff levels used. Load level studied. Operating steps or redispatch used. Base case adjustments to enhance transfer capability such as phase shifter settings or generation dispatch. Contingencies that are studied. What areas and voltages are monitored. Are third party limits monitored? Can source directions be changed to increase transfer capability? Define how FCTTC is determined. Describe rules for skipping limits.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☒ Agree

☐ Disagree

Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: As suggested in our answer to question 7 Exelon would prefer that the Standards drafting team adopt changes to the Transfer Capability Methodology section of this standard prior to going to ballot.
This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by April 03, 2005. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

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Do submit any formatted text or markups in a separate WORD file.

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Do not submit a response in an unprotected copy of this form.

### Individual Commenter Information

*(Complete this page for comments from one organization or individual.)*

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### NERC Region

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Group Comments (Complete this page if comments are from a group.)

Group Name: Midwest Reliability Organization
Lead Contact: Tom Mielnik
Contact Organization: MidAmerican Energy Company
Contact Segment: 2
Contact Telephone: 563-333-8129
Contact Email: tcmielnik@midamerican.com

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While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?

☐ Agree
☒ Disagree

Comments: The Midwest Reliability Organization (MRO) applauds the Standard Drafting Team for taking on a number of important issues since the last draft of this standard. These issues were ones that needed to be resolved. The MRO has concerns with the proposed definition of Cascading Outages. While the MRO agrees that the prior definition was to a certain extent vague, the MRO believes that the proposed definition is potentially too limiting a definition. The original definition refers to cascading as a "widespread event". While the SDT properly indicates that this is a vague term that requires interpretation, the MRO believes that the reason such language is used in the original definition is so that cascading would exclude events which result in multiple outages but which are purposely confined to a limited area. For example, the definition proposed by the SDT could be used to define a breaker failure event that confines the outaged area to the secondary area of protection that is successfully separated from the interconnected system in a controlled way with a breaker failure scheme as being cascading. This is because a breaker failure event, in and of itself, even with successful operation of the breaker failure protection system, could be considered to create unplanned and uncontrolled successive outages: that is the initial faulted system unit (a portion of the system potentially consisting of multiple elements which is collectively separated from other elements in the system by breakers) followed by the unplanned and uncontrolled successive outage of the second system unit. The two successive outages are controlled by the breaker failure protection system to not continue into a third unit. However, it could be argued that the successive outages of the two system units consists of successive uncontrollable and unplanned loss of system elements. Further, even if industry could determine that this proposed definition is designed to not categorically call breaker failure a cascading event (in other words that breaker failure would only be a cascading event if the breaker failure is not properly planned for and controlled by breaker failure protection), then why would it be necessary to be concerned about the uncontrolled and unplanned successive that are controlled and planned to not propagate beyond a local area. The NERC Standards should not be concerned with any propagating outage that remains within the local area in which the initiating incident began and that does not propagate to separate a significant amount of load. The MRO recommends that the SDT make further effort to define what portion of a system consists of more than a local area and more than a significant amount of load. The MRO has had a representative present at discussions of the SAR DT for SAR 600, Assess Transmission Future Needs and Develop Transmission Plans, in which such discussions of cascading were discussed. That group envisioned that a more precise definition would refer to the MW amount of load dropped or geographical size of the system separated. In lieu of the SDT developing more specific language which provides more description than the definition currently proposed by the SDT, the MRO recommends that the SDT include examples in their definition for cascading, such as indicating that areas of the system that have been designed to be outaged at the same time, as well as, breaker failure events, are not categorically considered cascading outages, then perhaps that would be a more acceptable definition.

With regard to the contingency definition, the MRO is unsure as to why the SDT decided to delete the examples which explained that a system component in this definition is intended to refer to electrical components. In other words, the NERC Version 0 definition for contingency would call an electrical element outage as a contingency, it would not however include a non-electrical outage such as the outage of the fuel system at a generating plant, a system component. The MRO recommends that the SDT restore the reference to system components, such as a generator,
transmission line, breaker, switch, or other electrical element, to the definition. The MRO believes that the addition clarifying that a single contingency may involve multiple elements is a helpful improvement. We think that it would be even better to indicate that it may include multiple elements if the multiple elements are within the same unit of the system. The MRO recommends that the SDT consider using the terminology in the current Version 0 standards for TPL-001-0 through TPL-004-0 which refer to events. A single event then may cause multiple element outages because of the connected nature of the system. In other words, the MRO recommends that the SDT refer to the items in the standard currently referred to as single contingencies as events and contingency elements.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☒ No additional changes needed
☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: The MRO has mixed feelings about the proposal to require the Transmission Owner and the Generator Owner to respond within 30 days to inquiries from the Reliability Authority and the Planning Authority about rating methodology. The TO and the GO are the parties that will be harmed if facilities are damaged if facility ratings are not properly set to protect the equipment. To date the industry norm has been that the TO and the GO document their rating methodology, follow the methodology in setting ratings, and that the same ratings are used for the TO and the GO as are used for all other parties. The presumption has been that the TO and the GO will not purposely set the ratings too high and face disproportionate risk. By the same token, the presumption has been that the TO and the GO will not keep its ratings too low resulting in unnecessarily limiting their own use of the system (as well as the use of others.) Besides since most TOs and GOs are required to reveal their methodologies for facility ratings by FERC, there is small chance that TOs and GOs will use faulty processes in setting facility ratings. This Standard Drafting Team is proposing that the norm needs to be raised such that the Reliability Authority and the Planning Authority technically review rating methodology of TOs and GOs and provide comments and that the TO and GO provide prompt response to such comments. While this process may possibly result in more uniformity in the rating of equipment, the fact is that most equipment today in the industry is largely rated based upon individual equipment peculiarities. While substation transformers have substantial cooling capabilities above normal ratings, they often have severely limiting components, such as internal leads, which limit such transformers on an individual equipment piece basis. Transmission lines ratings may be increased by assuming more liberal wind assumptions, none the less on an individual basis typically sag limits and encroachment on Right-of-Way require special segment by segment ratings. Most TOs have significant engineering staffs that build and operate facilities involved in equipment rating efforts. It would seem as if the SDT proposal would require substantial expansion of Planning Authority and Reliability Authority staffs to acquire expertise to properly evaluate rating methodology. Also, such staffing would be unfamiliar with the facilities that were constructed by TO and GO staffs thus resulting in a "technical review" that results in a "learning experience" rather than a beneficial process. Further it seems over kill for the standard to require that the TO and GO respond in a 30 day period and that failure to respond with such speed somehow represents a reliability issue to the interconnected network. While the MRO recognizes the potential benefits of this "technical review", the MRO feels the benefits do not outweigh the costs. The MRO recommends that the provision either be deleted in its entirety or else that at a minimum the standard delete the reference to "its technical review" in R3 and in M3. The TO and GO should make the methodologies available for inspection. What the RA and PA do with this inspection should be up to the RA and the PA. The MRO believes it is better that the standard not require "a technical review". This will mean that all RAs and PAs will gear up for such a technical review. Also, the 30
day response to a comment should be deleted as well. Ratings rarely should be subject to a hurried review. Rather rating changes should be carefully considered.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   
   Comments: The MRO believes that the definition needed to be coordinated with this document. The MRO fully supports this addition.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:
   
   Comments: In R3 there is the implication that the planning and operating horizons should be determined by each Reliability Authority and Planning Authority throughout NERC. The MRO strongly disagrees with this approach. In development of SAR 600, Assess Transmission Future Needs and Develop Transmission Plans, the SAR Drafting Team proposed that the planning horizon for SAR 600 (the Transmission Planning SAR) should be one year and beyond and the operating horizon for these Facility Ratings Standards should be up to one year. The MRO recommends that the drafting team specify the same here. It should be noted that this timing is consistent with the Functional Model which indicates that Transmission Planners prepare plans for one year and longer. Also the definition is consistent with the business environment in the industry with open access: firm transmission requests of one year and longer can be rolled over so that transmission request evaluation must take this into account when reviewing such requests.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   
   Comments: The MRO applauds the Standards Drafting Team for essentially developing an overall acceptable SOL approach in which the Reliability Authority and the Planning Authority develop SOL approaches which are subject to comment by others. However, again it seems over kill to require the RA and PA to respond to comments from others in 30 days or even to suggest that others need to conduct “technical reviews” of these SOL approaches. The MRO believes it is sufficient to require the RA and the PA to make their approach open for inspection of others. The MRO believes R9 should either be deleted completely or at least the technical review and the 30 day requirement should be deleted from R9. Therefore, the RA and the PA need to respond to comments whatever they are but they have the time to do so and “technical reviews” are not implicitly required or encouraged to be conducted by others.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - ☑ No additional criteria needed
   - ☐ The following additional criteria are needed:
   
   Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☐ Agree
   - ☑ Disagree

   Comments: Again the MRO believes the Standards Drafting Team has developed an overall acceptable Transfer Capability approach in which the Reliability Authority and the Planning Authority develop SOL approaches which are subject to comment by others. However, again it seems overkill to require the RA and PA to respond to comments from others in 30 days or even to suggest that others need to conduct “technical reviews” of these SOL approaches. The MRO believes it is sufficient to require the RA and the PA to make their approach open for inspection of others. The MRO believes R4 should either be deleted completely or at least the technical review and the 30 day requirement should be deleted from R4.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☑ The following changes should be made to the standard before it is submitted for ballot:

Other comments: 1. There is no mention of emergency ratings in either the FAC-008-1, FAC-009-1, or in FAC-010-1. Historically, NERC Standards have referred to emergency ratings and also have indicated that such ratings are “applicable for short durations as required to permit operating steps to maintain system control.” The MRO recommends that Emergency Ratings be referred to in the standard. The MRO also recommends that the SDT consider including the additional language which defines the requirements for emergency ratings.

2. The MRO believes that the definition for Cascading needs to be revised to not be so limiting in its definition. The MRO provides details above.

3. The MRO believes that the requirements for review of Facility Rating, SOL, and IROL Methodologies should be deleted or at least revised to delete technical reviews and 30 day responses to comments. This seems over kill given the limited benefits expected to be gained. However, the MRO does support the development and coordination of methodologies with appropriate stakeholders.

4. The MRO recommends that the SDT restore the reference to system components, such as a generator, transmission line, breaker, switch, or other electrical element, to the definition of contingency. The MRO recommends that the SDT consider referring in the definition to multiple elements if the multiple elements are within the same unit of the system. Further, the MRO recommends the SDT use the terminology in the current Version 0 standards for TPL-001-0 through TPL-004-0 which refer to events and contingency elements.

5. The MRO will not be able to support the WECC Regional Differences. The MRO notes that 1.4 of the WECC Regional Difference to FAC-010-1 seems to give the Western Interconnection license to develop completely different NERC augmentations without voting of the NERC Ballot Body. Without good evidence, the MRO will vote no on the WECC Regional Differences if such differences include 1.4.

6. The MRO recommends the SDT clearly indicate in the standards which Version 0 Standards that the SDT is superceding with proposed Standards FAC-008-1 through FAC-013-1.

7. Standard FAC-008-1, D. Compliance, 1.2 Compliance Monitoring Period and Reset Timeframe states: “The Responsible Entity shall self-certify its compliance to the Compliance Monitor once every three years. The Compliance Monitor may also conduct an on-site audit once every nine years and an investigation upon complaint to assess performance.” The MRO believes that self-certification once every three years or an on-site audit once every nine years is not nearly frequent enough. Self-Certification should be an annual occurrence and on-site reviews should be conducted every three years. The intervals that the SDT is suggesting are far too infrequent, a lot can happen in three and nine years respectively.

8. Standard FAC-008-1, D. Compliance, 2. Levels of Non-Compliance 2.1 Level 1 2.1.2 states that “The Facility Ratings Methodology does not address one of the required equipment types.” The SDT needs to be specific in indicating what are the required equipment types. For example, are these the equipment types listed in M1.2.1? Are there any other equipment types required?

9. Standard FAC-009-1, B. Requirements, R2 states: “The Transmission Owner and Generator Owner shall each provide Facility Ratings for it’s solely and jointly owned Facilities that are existing, new, modifications to, and re-ratings of, existing Facilities to its associated Reliability Authority(ies), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as
scheduled by such requesting entities.” The MRO believes that the SDT needs to specify what that scheduled time period is or state as scheduled per Regional policy. Just to state “as scheduled” is not measurable.

10. Standard FAC-009-1, C. Measures, M2 states: “The Transmission Owner and Generator Owner shall each have evidence that it provided its Facility Ratings to its associated Reliability Authority(ies), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.” The MRO believes that the SDT needs to specify what that scheduled time period is or state as scheduled per Regional policy. Just to state “as scheduled” is not measurable.

11. Standard FAC-009-1, D. Compliance, 2. Levels of Non-Compliance, Level 1 states that: “Some, but not all, requested Facility Ratings associated with existing Facilities were provided to the Reliability Authority(ies), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) in accordance with their respective schedules.” The MRO believes that the SDT needs to change “Some” to a measurable quantity. Some is up to the interpretation of the compliance reviewer. Level 2 Non-Compliance also uses “Some” as the measure; it too needs to be revised to a measurable quantity.

12. FAC-010-1, B. Requirements, R1 states: “The Reliability Authority shall document its methodology for use in developing SOLs (SOL Methodology) within its Reliability Authority Area. The Reliability Authority’s SOL Methodology shall be applicable for developing SOLs used in the operations horizon. The Reliability Authority’s SOL Methodology shall state that SOLs shall not exceed associated Facility Ratings.” The MRO believes that the SDT is implying Normal Facility Ratings when referring to Facility Ratings here. The MRO recommends that the SDT specifically spell out whether Facility Ratings mean Normal Facility Ratings or Emergency Facility Ratings here.

13. FAC-010-1, R3 states: “The Reliability Authority and Planning Authority shall, by mutual agreement identify and document in their respective SOL Methodologies the planning and operating time horizons addressed in one another’s SOL Methodologies. The combined horizons shall cover real-time through the end of the planning horizon.” The MRO previously indicated that the SDT should adopt a standard operating and planning horizon where the planning horizon is one year and beyond. If the SDT should choose not to adopt the MRO recommendation, then the SDT needs to revise this to say “by mutual written agreement” so that this requirement is measurable.

14. FAC-010-1, D. Compliance, 1. Compliance Monitoring Process, 1.2. Compliance Monitoring Period and Reset Timeframe states: “The Planning Authority and Reliability Authority shall each demonstrate compliance through an on-site audit conducted by the Compliance Monitor within the first year that the entity commences operation. The Planning Authority and Reliability Authority shall each self-certify its compliance to the Compliance Monitor once every three years. The Compliance Monitor may also conduct an on-site review once every nine years...” The MRO believes that self-certification once every three years an on-site audit once every nine years is not nearly frequent enough. Self-Certification should be an annual occurrence and on-site reviews should be conducted every three years. The intervals that the SDT is suggesting are far too infrequent, a lot can happen in three and nine years respectively.

15. FAC-011-1, D. Compliance, 2. Levels of Non-Compliance, 2.2. Level 2 states: “Some, but not all SOLs were provided in accordance with their respective schedules.” The MRO believes that the SDT needs to change “Some” to a measurable quantity. Some is up to the interpretation of the compliance reviewer.

16. FAC-013-1, B. Requirements, R2.1 states: “The Reliability Authority shall provide its Transfer Capabilities to its associated Regional Reliability Organization(s), the North American Electric Reliability Council, to its adjacent Reliability Authorities, to Reliability Authorities...” The MRO believes this is unclear. Is this supposed to be to all other Reliability Authorities? It’s not readily clear why this second reference to Reliability Authorities has been added. The MRO recommends that the SDT clarify this.
COMMENT FORM
Proposed Determine Facility Ratings

This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by April 03, 2005. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

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Individual Commenter Information
(Complete this page for comments from one organization or individual.)

| Name:       | Alan Adamson |
| Organization: | New York State Reliability Council (NYSRC) |
| Telephone: | (518) 355-1937 |
| Email: | aadamson@nycap.rr.com |

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While commenters indicated the standard is moving towards industry consensus, they also highlighted a number of areas needing additional clarification. The Standards Authorization Committee (SAC) also asked the Standard Drafting Team to bring certain concerns about a single rating methodology, as stated in August 14, 2003 Blackout documents, to the industry for feedback and possible inclusion into this standard. In addition, the NERC Operating Committee asked that the members of the Operating Limits Definition Task Force (OLD-TF), the Operate Within IROLs SDT (IROL SDT), and the members of the Determine Facility Ratings SDT (DFR SDT) to develop a common draft IROL definition for industry comment.

The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [X] Disagree

   Comments: The STD's definitions for Cascading Outages and Contingencies are inconsistent with the definitions for those terms included in the Version 0 Glossary of Terms (Draft 4 - 1/7/05). We prefer the Version 0 definitions.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments: In R2 the following phrase should be added: "in accordance with the individual's confidentiality agreements." This addition is necessary because of the Intellectual Property issues that may exist.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: We do not agree with the statement that allows "technical review". The Methodology should only be required to be made available as stated, when appropriate confidentiality agreements are in place.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:
   Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - [ ] No additional criteria needed
   - [ ] The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - [ ] Agree
   - [ ] Disagree
   Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☒ The following changes should be made to the standard before it is submitted for ballot:

Other comments: Requirement R4 of Standard FAC-010-1 should be expanded to include the requirement that SOLs shall provide BES performance that recognize events resulting in the loss of two or more (multiple) elements. Assessment of these contingencies (referred to as Category C Contingencies in Version 0 Standards TPL-001-0 to TPL-004-0) is presently required under Standard TPL-003-0. Therefore, not considering Category C Contingencies in Standard FAC-010-1 would constitute a WEAKENING of present NERC Standards. Continued omission of this requirement in this proposed Standard would likely be a "show stopper" for the New York State Reliability Council (NYSRC) when the Standard is balloted. Furthermore:

-- To state in this Standard that Regions may require assessment of more stringent standards (see FAC-010-1 R4, pages 3 and 4), e.g., Category C Contingencies, does not relieve the above NYSRC concerns. To the contrary, NPCC and New York reliability could be impacted if neighboring Regions operate to weaker NERC criteria.

-- It is curious as to why the SDT - if it agrees with the NERC principle that Regions may have more stringent criteria than NERC criteria – singles out just one section of this Standard (R4 of FAC-010-1) in which to apply this principle (see above item), without stating the principle is applicable to the entire group of FAC Standards.

-- The U.S. - Canada Power System Outage TF Report’s Recommendation #25 states: “A strong transmission system designed and operated in accordance with weakened criteria would be disastrous. Instead, a concerted effort should be undertaken to determine if existing reliability criteria should be strengthened…Only through strong standards and careful engineering can unacceptable power failures like August 14, 2003 be avoided in the future.” We do not believe that draft Standard FAC-010-1, because it weakens present NERC criteria, complies with this Recommendation. In accordance with Recommendation #25, consideration should be given to strengthening the Standard, not weakening it.

In conclusion, the NYSRC believes that weakening of present NERC criteria, in light of 2003 Blackout lessons learned, would be unacceptable - not only for NY reliability - but for the reliability of the entire North American bulk power system. WE STRONGLY URGE the STD to reinstate Category C requirements in this Standard, and that TPL-003-0 requirements not be replaced by this new Standard.

Other comments:

1. R4 of Standard FAC-010-1 should reference Table 1 of the TPL Standards.

2. In R4.1.1 of this Standard the parenthetical should be changed to: (or group of facilities and/or their associated equipment such as stabilizers and AVR).

3. R2 has no associated measure.

4. There is no documentation with the proposed Standards that indicates whether these Standards replace or revise existing Version 0 Standards, such as the removal of Category C Contingency requirements as pointed out above. We, therefore, suggest that an Implementation Plan with this information be included in the next version.
COMMENT FORM
Proposed Determine Facility Ratings

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**Individual Commenter Information**

(Complete this page for comments from one organization or individual.)

<table>
<thead>
<tr>
<th>Name:</th>
<th>William J. Smith</th>
</tr>
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<tbody>
<tr>
<td>Organization:</td>
<td>Allegheny Power</td>
</tr>
<tr>
<td>Telephone:</td>
<td>(724) 838-6552</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:wsmith1@alleghenypower.com">wsmith1@alleghenypower.com</a></td>
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Page 1 of 8
Group Comments (Complete this page if comments are from a group.)

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2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☑ No additional changes needed
☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☑ Agree
☐ Disagree

Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - [x] Agree
   - [ ] Disagree
   Comments:

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☐ The following additional criteria are needed:

Comments:

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☐ Agree
☐ Disagree

Comments:
Overall Standard:

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Name: Robert Rhodes
Organizations: Southwest Power Pool
Telephone: 501-614-3241
Email: rrhodes@spp.org

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Definitions:
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   - [ ] Agree
   - [x] Disagree

Comments: I concur with all of the definitions except Cascading Outages. I understand the difficult situation the SDT finds itself in trying to tie down this most important definition. I also understand some of the shortcomings that were pointed out in the previous definition but I'm afraid that this attempt is a swing too far in the other direction. This definition is too restrictive. If I read it correctly, and I may not be, loss of a single substation bus could be classified as a cascading outage. I certainly hope this is not what the SDT intended because I don't think this is the answer the industry is looking for.
2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments: 1. The first sentence of 1.2 could be clearer if commas were inserted as shown here: The Transmission Owner and Generator Owner shall each demonstrate compliance, through and on-site audit conducted by the Compliance Monitor, within the first year that the entity commences operation." The way it is currently written it is not completely clear that the one year time frame applies to the Transmission and Generator Owners.

Additionally, this sentence implies that it only applies to those entities that have just started operation. What about those that have been in operation as Control Areas for years? I would assume this applies to them as well but this section does not clearly indicate that.

2. Replace "made" in 1.4.2 with "replaced, changed or revised".

3. I have concerns about the comparability of the Levels of Non-Compliance. I would propose the following changes:

   Level 1: 2.1.3 and 2.4
   Level 2: 2.1.1 and 2.1.2
   Level 3: 2.2
   Level 4: 2.3

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☒ Agree
☐ Disagree

Comments:
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   Comments: Seems like a logical fit.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - Yes: The following additional criteria are needed:
   Comments: 1. If we needed an explicit definition for "widespread", why don't we also need one for "normal" as referenced in the definition for Pre-Contingency State?
   2. In prior drafts the responsibility for determining SOLs rested with the Transmission Operators. In this draft that responsibility is taken away from the Transmission Operator and given to the Reliability Authority without regard for input from the Transmission Operator. While I can see a need for some consistency in SOL methodology throughout a Reliability Area, just like a single facility rating methodology doesn't always work in every situation, there is a need for flexibility across systems within a Reliability Area. I would favor allowances for Transmission Operator input into the SOL methodology and even variations among Transmission Operators.
   3. See my comment 1. in Question 2 regarding the first sentence in Compliance 1.2 in FAC-010-1.
   4. The five-business day response required in Compliance 1.4 is too quick, 10 to 15 business days would be more appropriate.
   5. See my comment 2. in Question 2 regarding Compliance 1.4.3.
   6. There is a lack of consistency in the use of non-compliance and noncompliance in Compliance 2.
   7. I again have concerns about comparability of the Levels of Non-Compliance. I would suggest the following:
      Level 1: 2.1.1 and 2.2
      Level 2: 2.1.1
      Level 3: What is currently shown as Level 2.
      Level 4: 2.1.3 and 2.1.4
   6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   Comments: See my comment 2 in Question 5 and my response to Question 1.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - ☐ No additional criteria needed
   - ☒ The following additional criteria are needed:
     - Comments: 1. See my comment 1 in Question 2 regarding the first sentence in Compliance 1.2.
     - 2. See my comment 2 in Question 2 regarding Compliance 1.4.2.
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       - Level 1: 2.1.1
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8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☒ Agree
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9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.
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   Other comments: FAC-009-1

   1. Compliance 1.2 states that the Compliance Monitor may conduct an audit once each calendar year. I suggest changing this to requiring an audit once every three years.

   2. The five-business day response time requested in Compliance 1.4 is too quick, 10 to 15 business days would be more appropriate.

   3. I would suggest switching Levels 3 and 4 in the Levels of Non-Compliance.

FAC-011-1

   1. All the standards in this draft have an effective date of two months after Board approval. The effective date on this standard is not given. Why? If more than the typical two months is required to allow all entities to reach compliance, why not set this date six months after Board approval?

   2. See my comment 1 in response to Question 9, FAC-009-1 with regard to Compliance 1.2.

   3. See my comment 2 in response to Question 9, FAC-009-1 with regard to Compliance 1.4.

FAC-013-1

   1. I would suggest the following rewrite for R2.1: “The Reliability Authority shall provide its Transfer Capabilities to its associated Regional Reliability Organization(s), the North American Electric Reliability Council, to its adjacent Reliability Authorities and to Reliability Authorities, the Transmission Operators, Transmission Service Providers and Planning Authorities that work in its Reliability Authority Area.

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**Individual Commenter Information**

(Complete this page for comments from one organization or individual.)

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<tr>
<th>Name</th>
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<tr>
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</tr>
<tr>
<td>Telephone</td>
<td>204-487-5423</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:gnrheault@hydro.mb.ca">gnrheault@hydro.mb.ca</a></td>
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**NERC Region**

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   - Agree
   - Disagree

   Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☒ No additional changes needed
☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☒ Agree
☐ Disagree

Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☑ No additional changes needed
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6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☑ Agree
   ☐ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   ☑ No additional criteria needed
   □ The following additional criteria are needed:
   Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   ☑ Agree
   □ Disagree
   Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☑ The technical content of the standard is ready to be submitted for ballot

☐ The following changes should be made to the standard before it is submitted for ballot:

Other comments: In FAC-013-1 R2.1 the words "adjacent Reliability Authority(ies), to Reliability Authorities, and to the Transmission Operators" should be changes to "adjacent Reliability Authority(ies), to Reliability Authorities, Transmission Operators". This change will clarify that the second Reliability Authorities referenced in this sentence are ones that work in its Reliability Authority Area. Otherwise this term is unclear as to what is meant by the second "Reliability Authorities".
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<tr>
<td>Organization:</td>
<td>Ameren Services</td>
</tr>
<tr>
<td>Telephone:</td>
<td>314-554-4815</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:sahmad@ameren.com">sahmad@ameren.com</a></td>
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   - [ ] Agree
   - [ ] Disagree

   Comments: On Page 2 of 9, under Pre-Contingency State - What does "normal" mean in the first line versus "normal" in the third line?
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☐ The following additional criteria are needed:
   Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☐ Disagree
   Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - [ ] Agree
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Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

- [ ] The technical content of the standard is ready to be submitted for ballot
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Other comments:
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

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<table>
<thead>
<tr>
<th>Name:</th>
<th>Jeff Mitchell</th>
</tr>
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<tbody>
<tr>
<td>Organization:</td>
<td>ECAR Staff</td>
</tr>
<tr>
<td>Telephone:</td>
<td>330 580-8007</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:jeffm@ecar.org">jeffm@ecar.org</a></td>
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   - [ ] Agree
   - [ ] Disagree
   
   Comments:
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2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments: 1) Once approved, will Standard FAC-008-1 replace Standard FAC-004-0? It does not mention a replacement in the Roadmap, cover email for comments, or NERC web site. The new Standard FAC-008-1 is very similar to the current Standard FAC-004-0. 2) Under Requirement R1.2.1, it is not unequivocally clear what series circuit elements are required to be included in terminal equipment. At the least, it should state ALL terminal equipment including substation bus conductor from one terminal to the substation bus conductor of the other terminal of a transmission facility. All equipment including substation bus conductor, current transformers, relays (both thermal and loadability considerations), metering (thermal and scale considerations), etc. should be included in terminal equipment, but is not specifically mentioned in this standard. This may give the impression that secondary series equipment, or minor equipment such as leads, may not be required to be included as part of the overall facility rating. This standard should state that ALL conductor and equipment must be included to find the overall facility rating.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

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☐ Agree
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<th>Name:</th>
<th>Kathleen Goodman</th>
</tr>
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<tr>
<td>Telephone:</td>
<td>(413) 535-4111</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:kgoodman@iso-ne.com">kgoodman@iso-ne.com</a></td>
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The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [x] Disagree

   Comments: ISO-NE disagrees with the revised definition of Cascading Outages and prefers the original definition as stated in the Version 0 Glossary Draft 4 dated 1/7/05.

   ISO-NE suggests the definition of contingency be consistent with the same Version 0 Glossary Draft 4 as indicated above. Alternately, it could be defined as
   - Contingency: The unexpected outage of a single system element or multiple elements.

   IROL Definitions should be coordinated and consistent with the Version 0 Reliability Standards-Glossary for consistency purposes. Efforts should also be made to address entities "floating" below and over a limit repeatedly.

   NERC Definitions should perhaps be coordinated and revised by one entity responsible for that definition.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments:

The designations that have recently been developed and presented to the Standing Committees regarding the Functional Model also need to be incorporated and continued to be coordinated as they are revised.

Comments on Facility Ratings Standard FAC-008-1

The requirement R1.3 should be consistent with and based on credible and recognized standards/criteria (such as IEEE, ANSI, etc.) for purposes of "methodology" that could be used as guidelines.

In section C the measures M1.2 and M1.2.1 are exact repetition/copy of requirements R 1.2 and R1.2.1. We recommend that R1.2/R1.2.1 should be revised to reflect these as specific measures. Moreover, in the measure, there is a need to add "a requirement to change methodology" if the technical review results show that it does not meet the criteria specified on R1.3.

Measures M2 and M3 have no merit if there is no requirement to follow any credible methodology. Accordingly, this further necessitates the need for a consistent recognized standard/criteria for purposes of "methodology." Moreover, shouldn't there be penalties imposed for using an unacceptable or unrecognized methodology?

Comments on Facility Ratings Standard FAC-009-1

In section A item # 3, it is suggested to add a word .......to ensure the "proper" determination....

Section D -1.3 mentions retention of documentation for 12 months. What would be duration of retention of non-compliance/audit data for the compliance monitor?

In general, many of the measures are written more like requirements. Measures should be phrased and specified in a manner that they provide evidence for meeting the requirements.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: There is no requirement that an owner use an acceptable methodology, nor a standard set of assumptions. The outcome could be a set of ratings that are not useful for real operation and/or planning. The requirement for peer review would therefore not be effective. FERC recommends to have a single line methodology and criteria to be identified. Therefore, this necessitates the need for a consistent recognized standard/criteria for purposes of "methodology."

In the absence of such a recognized/consistent methodology, there is a possibility that the ratings could be artificially set so low, as to influence dispatches and flows on other circuits.
4. Do you agree with moving the identification of IROLs to this standard?

☑ Agree
☐ Disagree

Comments: ISO-NE believes that the drafting team makeup may need to be revisited given the extended scope for the determination of IROL (address operational vs. planning issues). There is also concern with the Planning Authority being involved with the determination of the SOL and IROL limits.

It is recommended that an implementation Plan be posted with each new Standard to ensure that the necessary coordination and planning has been done to replace/retire the pertinent Version 0 standards or requirements contained therein.

ISO-NE is also concerned with the Planning Authority being involved with the determination of the SOL and IROL limits. According to the Functional Model (FM), the Transmission Operator should define the SOL limits and not the Planning Authority. Moreover, as per FM, the RA calculates the IROLs. This inconsistency needs to be resolved.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?

☐ No additional changes needed
☑ The following additional criteria are needed:

Comments: See #4 above

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?

☑ Agree
☐ Disagree

Comments: As far as methodology is concerned, perhaps the RRO coordination/arbitration would be preferable.
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

- No additional criteria needed
- The following additional criteria are needed:

  
  Comments:

  Questions are raised whether there is a need for both Transfer Capability standards and/or SOL related standards re: SOL methodology…establishment. Would this result in duplication? This needs to be clarified.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

- Agree
- Disagree

  Comments:

  See Question 7 above.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☐ The following changes should be made to the standard before it is submitted for ballot:

Other comments:
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Individual Commenter Information
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   - Agree
   - Disagree
   Comments:
2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

- No additional changes needed
- The following additional criteria are needed:

  Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

- Agree
- Disagree

  Comments:
4. Do you agree with moving the identification of IROLs to this standard?
   ☑️ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☐ No additional changes needed
   ☑️ The following additional criteria are needed:
   Comments: FAC-010-1, section B, paragraphs R4.1 & R4.2 - Both paragraphs require that the system "demonstrate transient, dynamic, and voltage stability." These terms mean different things to different people. The terms need to be defined. The best course of action would probably be to require each RA and PA define the terms in their SOL & IROL methodology.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☑️ Agree
   ☐ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - No additional criteria needed
   - The following additional criteria are needed:

     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - Agree
   - Disagree

     Comments:
Overall Standard:

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  − Other comments:
    − Although the technical content of FAC-008-1 does not require additional revisions, M1 can be simplified. Change M1 FROM:
      − The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the following:
        − TO
        − The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items listed in Reliability Standard FAC-008-1-R1.1 through R1.3.
        − DELETE M1.1 through M1.3. This will eliminate the redundancy since M1.1 through M1.3 has the same wording as R1.1 through R1.3.
        − For consistency, this type of revision needs to be made to the standards in this series.
        − FAC-008-1, section D, paragraph 1.2 - The first sentence states "...within the first year that the entity commences operation." It is not clear who "the entity" is. Transmission Owners, Generation Owners, and Compliance Monitors have been in operation for many years. This needs to be defined better.
    − FAC-009-1, section B, paragraph R2 - The wording is awkward. It should be like the wording in M1.1. Therefore, R2 should read "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 Authority(ies), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.
    − FAC-009-1, section B, paragraph R2 - Ratings are required to be supplied according to the schedule of the requesting entity. There is no guarantee that the schedule will be reasonable. The wording should be "according to a schedule agreed to among the requesting entities and the Transmission Owner/Generator Owner.
    − FAC-010-1, section B, paragraph R4 - The requirement for the RA and PA to document their SOL methodologies is already in R1 & R2. There is no need for it to be repeated in R4. Therefore, R4 should be "Each SOL methodology shall include a requirement that SOLs provide BES performance consistent with the following:...."
    − FAC-010-1, section B, paragraph R5 - Item 5.4 requires that the SOL methodology include a description of "Any Special Protection Systems or Remedial Action Plans used". The way this requirement is phrased, it is more applicable to establishing SOL, rather than
the establishing a methodology. The wording should be changed to the following: "Allowed use of Special Protection Systems or Remedial Action Plans."

- FAC-010-1, section C, paragraph M3 - A measure M3.3 is needed which says "Each Transmission Planner that works in the Planning Authority’s Planning Authority Area" to be consistent with R7.3.

- FAC-011-1, section B, paragraph R4.2 - This seems to require a Transmission Operator to establish SOLs. This is not consistent with the latest Changes Made Based on Industry Comments document in which it says that "For this standard, the SDT assumed that the RA is responsible for establishing all SOLs for its RA Area — but may delegate part of this activity to its TOPs. Without formal delegation, the TOP is not responsible for developing any SOLs." The wording should be clarified as follows: "The Transmission Operator shall provide any SOLs (for which it has been delegated the responsibility to develop) to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area."

- Although the technical content of FAC-012-1 do not require additional revisions, M1 through M3 can be simplified since the measures are a repeat of the corresponding requirements R1 through R3.

- FAC-012-1, section B, paragraphs R2 & R3 - The wording is awkward. It should be changed to the following: "...shall issue its Transfer Capability Methodology, and any changes to that methodology, prior to the effectiveness of such changes, to all of the following:"

- FAC-012-1, section B, paragraph R3.2 - The wording is unclear. It should be changed to the following: "Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area."

- FAC-012-1, section C, paragraph M3.2 - The wording is unclear. It should be changed to the following: "Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area."

- FAC-012-1, section C, paragraph M4 - This repeats the requirements of M2 and M3. Therefore it is not needed and should be deleted.

- FAC-013-1, section B, paragraph R2.1 - The paragraph contains the following: "...to its adjacent Reliability Authorities, to Reliability Authorities, and...". The second use of "to Reliability Authorities" should be deleted.
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<tr>
<td><strong>Name:</strong> Greg Mason</td>
</tr>
<tr>
<td><strong>Organization:</strong> Dynegy Generation</td>
</tr>
<tr>
<td><strong>Telephone:</strong> 217 872-2301</td>
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<tr>
<td><strong>Email:</strong> <a href="mailto:gregory.mason@dynegy.com">gregory.mason@dynegy.com</a></td>
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Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_v$?
   - [ ] Agree
   - [ ] Disagree
   Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?
   - [ ] No additional changes needed
   - [x] The following additional criteria are needed:
     
     Comments: Item B.R1.3.3 needs to be expanded to more clearly include generating equipment. Our new suggested wording for this item is: "Operating limitations (e.g., ambient conditions, voltage levels, equipment constraints)"

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?
   - [x] Agree
   - [ ] Disagree

   Comments:
4. Do you agree with moving the identification of IROLs to this standard?
   □ Agree
   □ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   □ No additional changes needed
   □ The following additional criteria are needed:
   Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   □ Agree
   □ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☐ No additional criteria needed
☐ The following additional criteria are needed:

Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☐ Agree
☐ Disagree

Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot
☐ The following changes should be made to the standard before it is submitted for ballot:

Other comments:
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### Individual Commenter Information

*(Complete this page for comments from one organization or individual.)*

<table>
<thead>
<tr>
<th>Name:</th>
<th>Raj Rana - Coordinator</th>
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<tr>
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<td>AEP</td>
</tr>
<tr>
<td>Telephone:</td>
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</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:raj_rana@AEP.com">raj_rana@AEP.com</a></td>
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Group Comments (Complete this page if comments are from a group.)

**Group Name:**
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**Contact Organization:**
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   - [ ] Agree
   - [x] Disagree

Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed

☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree

☐ Disagree

Comments: The approach is reasonable. However only a RA or PA can challenge an owner's rating methodology. R3 should be expanded to allow adjacent transmission owners to challenge a rating methodology, and expect to get a response.
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   □ Disagree

   Comments: This family of standards is definitional in nature, therefore the identification of IROLs belong in this standard.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☑ No additional changes needed
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   Comments:

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   ☑ Agree
   □ Disagree

   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - No additional criteria needed
   - ☐ The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☐ Agree
   - ☒ Disagree
     Comments: R3.2 should be expanded to include that each PA also distribute the methodology to any transmission planner that models that area covered by the PA. This would be comparable to the requirement R2.2 for the RA.
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☑️ The technical content of the standard is ready to be submitted for ballot

☐ The following changes should be made to the standard before it is submitted for ballot:

Other comments: This standard has been under development for 3 years, and has already included comments received from the last two postings. These standards are definitional and foundational. It is time for the industry to vote on these very basic standards.
Comment Form for 3rd Posting of Determine Facility Ratings, System Operating Limits and Transfer Capabilities Standard

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Group Name: NPCC CP9 Reliability Standards Working Group
Lead Contact: Guy Zito
Contact Organization: NPCC
Contact Segment: 2
Contact Telephone: 212-840-1070
Contact Email: gzito@npcc.org

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<td>Kathleen Goodman</td>
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<td>Alan Adamson</td>
<td>New York State Reliability Coun.</td>
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<td>David Kiguel</td>
<td>Hydro One Networks Inc, Ontario</td>
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   - [ ] Agree
   - [x] Disagree

   Comments: NPCC's participating members disagree with the revised definition of Cascading Outages and prefers the original definition as stated in the Version 0 Glossary Draft 4 dated 1/7/05.

   NPCC participating members suggest the definition of contingency be consistent with the same Version 0 Glossary Draft 4 as indicated above. Alternately it could be defined as follows:
   Contingency: The unexpected outage of a single system element or multiple elements.

   IROL Definitions should be coordinated and consistent with the Version 0 Reliability Standards-Glossary for consistency purposes. Efforts should also be made to address entities "floating" below and over a limit repeatedly.

   NERC Definitions should perhaps be coordinated and revised by one entity responsible for that definition.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments:

The designations that have recently been developed and presented to the Standing Committees regarding the Functional Model also need to be incorporated and continued to be coordinated as they are revised.

Comments on Facility Ratings Standard FAC-008-1

The requirement R1.3 should be consistent with and based on credible and recognized standards/criteria (such as IEEE, ANSI etc) for purposes of “methodology” that could be used as guidelines.

In section C the measures M1.2 and M1.2.1 are exact repetition/copy of requirements R 1.2 and R1.2.1. We recommend that R1.2/R1.2.1 should be revised to reflect these as specific measures. Moreover, in the measure, there is a need to add “a requirement to change methodology” if the technical review results show that it does not meet the criteria specified on R1.3.

NPCC participating members are of the opinion that the measures M2 and M3 have no merit if there is no requirement to follow any credible methodology. Accordingly, this further necessitates the need for a consistent recognized standard/criteria for purposes of “methodology”. Moreover, there should be penalties imposed for using an unacceptable or unrecognized methodology?

Comments on Facility Ratings Standard FAC-009-1

In section A item # 3, it is suggested to add a word …….to ensure the "proper" determination....

Section D -1.3 mentions about retention of documentation for 12 months. What would be duration of retention of non-compliance/audit data for the compliance monitor?

In general, many of the measures are written more like requirements. Measures should be phrased and specified in a manner that they provide evidence for meeting the requirements.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: NPCC Participating Members disagree with the vagueness of the standard. There is no requirement that an owner use an acceptable methodology, nor a standard set of assumptions. The outcome could be a set of ratings that are not useful for real operation and/or planning. The requirement for peer review would therefore not be effective. FERC recommends to have a single line methodology and criteria to be identified. Therefore, this necessitates the need for a consistent recognized standard/criteria for purposes of "methodology".

In the absence of such a recognized/consistent methodology, there is a possibility that the ratings could be artificially set so low, as to influence dispatches and flows on other circuits.
4. Do you agree with moving the identification of IROLs to this standard?
   ☒ Agree  ☐ Disagree
   
   Comments: NPCC participating members are concerned that the drafting team makeup may be inappropriate to properly address the determination of IROL (address operational vs. planning issues). There is also concern with the Planning Authority being involved with the determination of the SOL and IROL limits.

   The SAR states that this is a new standard. The IESO is concerned that the Version 1 standards "piecemeal approach" to replace standards that appear in Version 0 may result in confusion by the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an implementation Plan be posted with each new Standard to ensure that the necessary coordination and planning has been done to replace/retire the pertinent Version 0 standards or requirements contained therein.

   There are also concerns with the Planning Authority being involved with the determination of the SOL and IROL limits. According to the Functional Model (FM) the Transmission Operator should define the SOL limits and not the Planning Authority. Moreover, as per FM, the RA calculates the IROLs.

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   ☐ No additional changes needed  ☒ The following additional criteria are needed:
   Comments: See #4 above

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☒ Agree  ☐ Disagree
   Comments: As far as methodology is concerned, perhaps the RRO coordination/arbitration would be preferable".
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - No additional criteria needed
   - ☒ The following additional criteria are needed:

   Comments:

   Questions are raised whether there is a need for both Transfer Capability standards and/or SOL related standards re: SOL methodology…establishment. Would it result in duplication? this needs to be clarified.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☒ Agree
   - ☒ Disagree

   Comments:

   See Question 7 above
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

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Other comments:

Continued omission of Category C contingencies in the standard would be considered a “show stopper” for many members of NPCC, i.e., “no” when the standard is balloted. Our above review focused on Standard FAC-010-1, which is one of six related standards that have been posted for comment.

This draft continues to omit Category C contingencies. This is of particular concern because:

- The recently adopted Version 0 Standards - specifically Standard TPL-003-0, “System Performance Following Loss of Two or More BES Elements” - includes Category C contingencies, and adoption of FAC-011-1 in its present form without considering these contingencies, we believe, would be inconsistent with Standard TPL-003-0 and a weakening of existing NERC standards.

- To state in this standard that Regions may have more stringent standards covering Category C contingencies does not suffice – NPCC reliability could be impacted if a neighboring system operates to the weaker NERC criteria.

- The U.S. - Canada Power System Outage TF Report’s Recommendation #25 states: “A strong transmission system designed and operated in accordance with weakened criteria would be disastrous. Instead, a concerted effort should be undertaken to determine if existing reliability criteria should be strengthened…Only through strong standards and careful engineering can unacceptable power failures like August 14, 2003 be avoided in the future.” NPCC’s participating members do not believe that Draft 3 meets this principle.

- It is curious as to why NERC - if it maintains the principle that Regions may have more stringent criteria than NERC criteria – singles out just one section of this Standard in which to apply the principle, without stating the principle is applicable to the entire standard.

The FAC and IRO standards need to be closely coordinated and there is concern that a key component requirement may end up missing.

In FAC-011-1, Requirement 4.1.1, Change parenthetical to; (or group of facilities and or their associated equipment such as stabilizers and AVR)

In FAC-011-1, Requirement 4.1.1, Requirement 4.2 has no associated Measure.

The SDT should also be commended for requiring the distribution of study results, in FAC-011-1 (R4), to those entities that have indicated a "reliability related need". However it is not apparent how to determine what a "reliability related need" is. How would an entity know if they are compliant or not if an entity refuses a request based on another entities perception of "reliability need" that differs from the limit holders perception of "reliability need". The bottom line is that a clear or specific criteria is missing.

The real requirement to distribute should be defined in explicit terms. That is, those entities in the host Area that perform the Reliability Assessments in planning and real time for the facilities, along with those similar entities in adjoining or other areas that operate facilities that are critical to the limit. (ie move R4.2, R4.3 and R4.4 in front of R4.1).
R4.1.1 does not fully capture the Boundary conditions concept. In addition to the identification and status of the associated Facility critical to the limit, the operators need to be aware of those components within a Facility that are critical to the limit and their required status. If the term "Facility" is applied as defined in FAC-008-1 (a "set of electrical equipment that operates as a single BES element") then by definition, it is quite possible that critical elements can be inadvertently excluded from this knowledge base. For example, it is possible that a generator could be in service with impaired operation of the AVR or stabilizer. If it is the operation of the AVR or Stabilizer that is critical to the limit, and only the generator is deemed critical then it is possible to have a limit in effect that is invalid.

As part of the Boundary conditions, the operators also need to be aware of the electrical area for which the limits cover, any pertinent Minimum and Maximum values any study indicates for the limits to be valid, and as stated above the status of auxiliaries within any facility that are critical to the limit.

NPCC's participating members also have expressed concern that the Version 1 standards "piecemeal approach" to replace standards that appear in Version 0 may result in confusion by the industry. There may be requirements scattered between Version 0 and Version 1, some approved and some pending. Therefore it is recommended that an Implementation Plan be posted with each new Standard to ensure that the necessary coordination and planning has been done to replace/retire the pertinent Version 0 standards or requirements contained therein. Some examples where possible duplication / inconsistency shall be checked are: FAC-004-0 vs FAC-008-1, FAC-005-0 vs FAC-009-1, MOD-001-0 vs FAC-012-1".
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Individual Commenter Information

(Complete this page for comments from one organization or individual.)

Name:

Organization:

Telephone:

Email:
**Group Comments (Complete this page if comments are from a group.)**

**Group Name:** Public Service Commission of South Carolina  
**Lead Contact:** Phil Riley  
**Contact Organization:** Public Service Commission of South Carolina  
**Contact Segment:** 9  
**Contact Telephone:** 803-896-5154  
**Contact Email:** philip.riley@psc.sc.gov

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<td>G. O’Neal Hamilton</td>
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   - [ ] Agree
   - [ ] Disagree

Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☑ No additional changes needed
☐ The following additional criteria are needed:

Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☑ Agree
☐ Disagree

Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
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   - Agree
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   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☐ No additional criteria needed
☐ The following additional criteria are needed:

Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☐ Agree
☐ Disagree

Comments:
Overall Standard:

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<tr>
<th>Name:</th>
<th>Kathleen A. Davis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization:</td>
<td>Tennessee Valley Authority</td>
</tr>
<tr>
<td>Telephone:</td>
<td>423-751-6172</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:kadavis@tva.gov">kadavis@tva.gov</a></td>
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**Group Name:** Transmission Power Supply

**Lead Contact:**

**Contact Organization:**

**Contact Segment:**

**Contact Telephone:**

**Contact Email:**

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Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_V$?

☐ Agree
☒ Disagree

Comments:
Cascading Outages - we prefer the Version 0 definition that specified "beyond an area predetermined by studies". Adding this phrase to the present definition would be an improvement.

Other definitions were okay.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

   □ No additional changes needed
   □ The following additional criteria are needed:

   Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

   □ Agree
   □ Disagree

   Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
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   Comments:

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   □ No additional changes needed
   ☑ The following additional criteria are needed:
   Comments: Need clarification of intent on R4.3.3
   R4.1 and R4.2 clearly state that the system must be operated within limits in real-time and following the specified single contingencies.

   R4.3.3 appears to allow for manual action/intervention as a response to a single contingency. This could be viewed as the standard permitting the system to operate above limits during the time it takes to manually respond to the contingency event through reconfiguration, redispatch, or other mitigating action. Was this the intent of the drafting team? Also, does reconfiguration in R4.3.3 include generation redispatch?

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☑ Agree
   □ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - [x] No additional criteria needed
   - [ ] The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - [x] Agree
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Overall Standard:

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Other comments:

see our comments on question #5

Because of the work involved in implementing these standards, we suggest that they become effective six months following BOT approval, rather than two months

Also:

"Reliability Authority" is used throughout this standard and this terminology is still in question with regard to the Functional Model.

FAC-009-1 in section R2, should the Regional Reliability Organization be included?

FAC-010-1 In the definitions section, the abbreviation (IROL) should be included with the spelled out words since it’s not done in the body of the standard..eg R1 and R4

under section 2. Levels of Non-Compliance, there needs to be a 2.2 in front of "Level 2".......2.3 in front of "Level 3".....next two sections should be numered 2.3.1, 2.3.2, and 2.4 in front of "Level 4"

FAC-011-1 the Transmission Operator is mentioned in R4.1 and R4.2, but wasn't listed in the Applicability section.

in section 4.1, should the Regional Reliability Organization be included?

FAC-012-1

Look at the numbering under Section C. Measures…should be M1.3.1, M1.3.2, M1.3.3, M1.3.4
also, M4 seems to be redundant …details already covered in M2 and M3

FAC-013-1 in subsections R2.1 and R2.2 there is mention of NERC. Is this necessary if information is being provided to Regional Reliability Organizaton? If so, it should be in FAC-009-1 and FAC-011-1
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<tr>
<th>Name:</th>
<th>John Horakh - 03-28-2005</th>
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<tbody>
<tr>
<td>Organization:</td>
<td>MAAC</td>
</tr>
<tr>
<td>Telephone:</td>
<td>609-625-6014</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:john.horakh@conectiv.com">john.horakh@conectiv.com</a></td>
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   - [ ] Agree
   - [X] Disagree

   Comments: Change the definition of Contingency to the following: An incident that results in the unexpected outage of a system Facility. A single contingency may result in outages of multiple Facilities.

   Also, in the definition of Facility, replace: a generating plant, with: a generating unit.

   Also, in the definition of Performance-Reset Period, insert the word: violating, before the word: entity.
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

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Comments: Add under R1.3 and under M1.3 (consideration of) The time period that the Facility must sustain the Rating

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: R2 and M2 indicate that the four relevant entities (RA, PA, TOP, and TP) each have access to the Facility Rating Methodologies. However, in R3 and M3, only the RA and PA are allowed to submit written comments. The TOP and TP should also be allowed to submit written comments. These should also be added in Levels of Compliance 2.1.3.
4. Do you agree with moving the identification of IROLs to this standard?
   ☑ Agree
   ☐ Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
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   Comments:

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
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   ☐ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?

☐ No additional criteria needed
☒ The following additional criteria are needed:

Comments: In R1.1 and M1.1, Transfer Capabilities shall respect all applicable SOLs. Since the IROLs subset of SOLs are established as per methodology in FAC-010-1, there should not be a need to review all SOLs when determining Transfer Capability. So just respect the IROLs.

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?

☒ Agree
☐ Disagree

Comments:
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.
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- Do not submit a response in an unprotected copy of this form.

Individual Commenter Information

(Complete this page for comments from one organization or individual.)

<table>
<thead>
<tr>
<th>Name:</th>
<th>Ed Davis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organization:</td>
<td>Entergy Services, Inc</td>
</tr>
<tr>
<td>Telephone:</td>
<td>504-310-5884</td>
</tr>
<tr>
<td>Email:</td>
<td><a href="mailto:edavis@entergy.com">edavis@entergy.com</a></td>
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<td>☑ NA - Not Applicable</td>
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Group Comments (Complete this page if comments are from a group.)

Group Name:

Lead Contact:

Contact Organization:

Contact Segment:

Contact Telephone:

Contact Email:

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The SDT did make three types of changes to this draft standard – changes based on industry comments to the second posting of this standard, changes based on the request from the SAC, and changes based on the necessity to have a common understanding of how to identify IROLs. The changes to the standards relative to the last posting are highlighted in the Executive Summary of Changes Made, and the attached form seeks your feedback on the appropriateness of these changes. In addition to the changes highlighted in the Executive Summary, the SDT put the standard into the ‘new’ standard format established with Version 0 Standards. With the new format, each of the six major requirements is now a ‘stand-alone’ standard, sequentially numbered FAC-008-1 through FAC-013-1.
Please answer the following questions:

Definitions:
1. Do you agree with the SDT's proposed definitions for Cascading Outages, Contingencies, Interconnection Reliability Operating Limits, and Interconnection Reliability Operating Limit $T_V$?
   - [X] Agree
   - [ ] Disagree
   - Comments:
FAC-008-1 (Previously Section 601) – Facility Ratings Methodology:

2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?
   - [x] No additional changes needed
   - [ ] The following additional criteria are needed:
     Comments:

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?
   - [x] Agree
   - [ ] Disagree
   Comments:
FAC-010-1 (Previously Section 603) – System Operating Limits Ratings Methodology:

4. Do you agree with moving the identification of IROLs to this standard?
   - Agree
   - Disagree
   Comments:

5. What additional changes, if any, should the SDT make to Reliability Standard FAC-010-1 to add more criteria to the requirement for establishing a System Operating Limits Methodology to determine SOLs; and/or to determine which SOLs are also IROLs?
   - No additional changes needed
   - The following additional criteria are needed:
     - Comments:FAC-010-1, section B, paragraphs R4.1 & R4.2 - Both paragraphs require that the system "demonstrate transient, dynamic, and voltage stability." These terms mean different things to different people. The terms need to be defined. The best course of action would probably be to require each RA and PA define the terms in their SOL & IROL methodology.

6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   - Agree
   - Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - ☑ No additional criteria needed
   - ☐ The following additional criteria are needed:
     Comments:

8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☑ Agree
   - ☐ Disagree
   Comments:
9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

☒ The following changes should be made to the standard before it is submitted for ballot:

- Other comments:

- Although the technical content of FAC-008-1 does not require additional revisions, M1 can be simplified. Change M1 FROM:

- The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the following:

- TO

- The Transmission Owner and Generator Owner shall each have a documented Facility Ratings Methodology that includes all of the items listed in Reliability Standard FAC-008-1-R1.1 through R1.3.

- DELETE M1.1 through M1.3. This will eliminate the redundancy since M1.1 through M1.3 has the same wording as R1.1 through R1.3.

- For consistency, this type of revision needs to be made to the standards in this series.

- FAC-008-1, section D, paragraph 1.2 - The first sentence states "...within the first year that the entity commences operation." It is not clear who "the entity" is. Transmission Owners, Generation Owners, and Compliance Monitors have been in operation for many years. This needs to be defined better.

- FAC-009-1, section B, paragraph R2 - The wording is awkward. It should be like the wording in M1.1. Therefore, R2 should read "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 Authority(ies), Planning Authority(ies), Transmission Planner(s), and Transmission Operator(s) as scheduled by such requesting entities.

- FAC-009-1, section B, paragraph R2 - Ratings are required to be supplied according to the schedule of the requesting entity. There is no guarantee that the schedule will be reasonable. The wording should be "according to a schedule agreed to among the requesting entities and the Transmission Owner/Generator Owner.

- FAC-009-1, section B, paragraph R4 - The requirement for the RA and PA to document their SOL methodologies is already in R1 & R2. There is no need for it to be repeated in R4. Therefore, R4 should be "Each SOL methodology shall include a requirement that SOLs provide BES performance consistent with the following:....."

- FAC-010-1, section B, paragraph R5 - Item 5.4 requires that the SOL methodology include a description of "Any Special Protection Systems or Remedial Action Plans used". The way this requirement is phrased, it is more applicable to establishing SOL, rather than
the establishing a methodology. The wording should be changed to the following: "Allowed use of Special Protection Systems or Remedial Action Plans."

- FAC-010-1, section C, paragraph M3 - A measure M3.3 is needed which says "Each Transmission Planner that works in the Planning Authority’s Planning Authority Area" to be consistent with R7.3.

- FAC-011-1, section B, paragraph R4.2 - This seems to require a Transmission Operator to establish SOLs. This is not consistent with the latest Changes Made Based on Industry Comments document in which it says that "For this standard, the SDT assumed that the RA is responsible for establishing all SOLs for its RA Area — but may delegate part of this activity to its TOPs. Without formal delegation, the TOP is not responsible for developing any SOLs." The wording should be clarified as follows: "The Transmission Operator shall provide any SOLs (for which it has been delegated the responsibility to develop) to its Reliability Authority and to the Transmission Service Providers that share its portion of the Reliability Authority Area."

- Although the technical content of FAC-012-1 do not require additional revisions, M1 through M3 can be simplified since the measures are a repeat of the corresponding requirements R1 through R3.

- FAC-012-1, section B, paragraphs R2 & R3 - The wording is awkward. It should be changed to the following: "...shall issue its Transfer Capability Methodology, and any changes to that methodology, prior to the effectiveness of such changes, to all of the following:"

- FAC-012-1, section B, paragraph R3.2 - The wording is unclear. It should be changed to the following: "Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area."

- FAC-012-1, section C, paragraph M3.2 - The wording is unclear. It should be changed to the following: "Each Reliability Authority and Transmission Operator that is responsible for any portion of the Planning Authority’s Planning Authority Area."

- FAC-012-1, section C, paragraph M4 - This repeats the requirements of M2 and M3. Therefore it is not needed and should be deleted.

- FAC-013-1, section B, paragraph R2.1 - The paragraph contains the following: "...to its adjacent Reliability Authorities, to Reliability Authorities, and...". The second use of "to Reliability Authorities" should be deleted.
This form is to be used to submit comments on the proposed Determine Facility Ratings Standard. Comments must be submitted by **April 04, 2005**. You may submit the completed form by emailing it to: sarcomm@nerc.com with the words “DFR Standard- Comments” in the subject line. If you have questions please contact Mark Ladrow at mark.ladrow@nerc.net or by telephone at 609-452-8060.

ALL DATA ON THIS FORM WILL BE TRANSFERRED AUTOMATICALLY TO A DATABASE AND IT IS THEREFORE IMPORTANT TO ADHERE TO THE FOLLOWING REQUIREMENTS:

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Group Comments (Complete this page if comments are from a group.)

**Group Name:** WECC Reliability Subcommitee  
**Lead Contact:** Jeffrey Miller  
**Contact Organization:** California ISO  
**Contact Segment:** 2  
**Contact Telephone:** 916 351-4464  
**Contact Email:** jmiller@caiso.com

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<td>Baj L. Agrawal</td>
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<td>Ronald D. Schellberg</td>
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   - Agree
   - Disagree

Comments:
2. What additional changes, if any, should the SDT make to Reliability Standard FAC-008-1 to add more criteria to the requirement for establishing a Facility Ratings Methodology?

☐ No additional changes needed
☒ The following additional criteria are needed:

Comments: Add wording from Version 0 FAC-004-0 R1.3. The definition of the term "Reliability Authority" is in question. Standards should only refer to defined functional authorities. The term should be corrected, removed, or development of the Standard should be put on hold until an agreed upon term is defined.

3. Do you agree with the changes made to Reliability Standard FAC-008-1 to address the technical review of Facility Ratings Methodologies?

☐ Agree
☒ Disagree

Comments: M2 as written is unclear. Please clarify what constitutes "evidence". Is the intent of M2 that entities provide the methodology within 15 days of request OR that entities have evidence that they provided the methodology within 15 days?
4. Do you agree with moving the identification of IROLs to this standard?
   ✅ Agree
   ☐ Disagree
   Comments:

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6. Do you agree with the changes made to Reliability Standard FAC-010-1 to address the technical review of System Operating Limits Methodologies?
   ☐ Agree
   ☐ Disagree
   Comments:
FAC-012-1 (Previously Section 605) – Transfer Capability Methodology:

7. What additional changes, if any, should the SDT make to Reliability Standard FAC-012-1 to add more criteria to the requirement for establishing a Transfer Capability Methodology?
   - ☐ No additional criteria needed
   - ✗ The following additional criteria are needed:
     
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8. Do you agree with the changes made to Reliability Standard FAC-012-1 to address the technical review of the Transfer Capability Methodology?
   - ☐ Agree
   - ☐ Disagree
   
   **Comments:**
Overall Standard:

9. Please identify any other changes you think the SDT should make to this standard before it is submitted for ballot.

☐ The technical content of the standard is ready to be submitted for ballot

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Other comments: