

Notes

Project 2009-06 — Facility Ratings SDT

October 20, 2009 | 3:00 pm– 5:00 pm EDT
Dial-In Number: (866) 740-1260 | Access Code: 6519455

Visual Access:

<https://cc.readytalk.com/r/onid5u7tqcv3>

1. Administration

a. Introductions

Chifong Thomas	Terry Crawley	Steve Crutchfield
Paul Johnson	Mike Viles	Bob Birch
Bob Millard	Steve Myers	

b. NERC Anti-trust Guidelines — Mr. Crutchfield reviewed.

2. Review and finalize responses to Stakeholder Comments on the SAR — Mr. Johnson led a discussion of responses. These were agreed to by the team.

3. Summarize action items

- Mr. Crutchfield to develop summary consideration for each question.
- Mr. Crutchfield to develop redline SAR and send to team
- Team to review docs prior to next call and provide input.

4. Schedule future meetings

- October 30, 2009 — Web meeting

5. Adjourn

Standard Authorization Request Form

Title of Proposed Standard Revisions to Facility Ratings Standards FAC-008-1 and FAC-009-1	
Request Date	December 24, 2008
Revision Date	July 23, 2009
Revision 2 Date	October 21, 2009

SAR Requestor Information	SAR Type <i>(Check a box for each one that applies.)</i>
Name Paul Johnson	<input type="checkbox"/> New Standard
Primary Contact Paul Johnson, Managing Director of Transmission Operations	<input checked="" type="checkbox"/> Revision to existing Standards FAC-008-1 FAC-009-1
Telephone 614-413-2200 Fax	<input type="checkbox"/> Withdrawal of existing Standard
E-mail pbjohnson@aep.com	<input type="checkbox"/> Urgent Action

<p>Purpose</p> <p>The purpose of revising these standards is to:</p> <ol style="list-style-type: none"> 1. Ensure they are enforceable as mandatory reliability standards with financial penalties - the applicability to bulk power system owners, operators, and users, and as appropriate particular classes of facilities, is clearly defined; the purpose, requirements, and measures are results-focused and unambiguous; the consequences of violating the requirements are clear. 2. Consider applicable FERC directives from Order 693 3. Bring the standards into conformance with the latest version of the Reliability Standards Development Procedure and the ERO Rules of Procedure. (Attachment 1) 4. Satisfy the standards procedure requirement for five-year review of the standards.
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Industry Need

As the electric reliability organization begins enforcing compliance with reliability standards under Section 215 of the Federal Power Act in the United States and applicable statutes and regulations in Canada, the industry needs a set of clear, measurable, and enforceable reliability standards. While the Federal Energy Regulatory Commission approved both FAC-008 and FAC-009 as enforceable reliability standards, the Commission also directed NERC to make modifications to FAC-008 and indicated that making these modifications should be considered a 'high' priority.

Brief Description

The revisions to these two standards will result in a single standard that is responsive to the recommended changes identified in the Standard Review Guidelines attached to this SAR and also to two of the three applicable FERC directives in Order 693.

The proposed changes to FAC-008 and FAC-009 have already been through stakeholder review and reached consensus in 2008 on all requirements except the requirement (R7) developed to meet the FERC directive in Order 693 that required identification of the most limiting component of a facility and the theoretical increase in rating if the limitation were removed. Stakeholders indicated that this requirement (R7) did not have a reliability-related benefit, and voted against the inclusion of a requirement to meet this directive. Thus, this SAR proposes the same standard that was developed and balloted in late 2008, but without the requirement (R7).

Revise the Generator Owner requirements to provide greater clarity of the Generator Owner responsibilities and options for developing facility rating documentation.

Revise the Measures, and compliance elements, including Violation Severity Levels (VSLs) to conform to changes made to the requirements for the Generator Owner and to conform to the latest revisions to the VSL Guidelines and in support of the work done by the VSL Drafting Team.

Detailed Description

The revisions to these two standards are shown in the proposed standard.

The proposed changes have already been through stakeholder review and appeared to reach consensus in 2008 with the exception of adding a requirement to meet the third FERC directive shown below. Stakeholders indicated that the third directive was not needed for reliability, and voted against the inclusion of a requirement to meet this directive. The first two directives have been met in the attached proposed standard.

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

Stakeholders have indicated that additional clarity is needed with respect to the requirements assigned to Generator Owners and the requirements assigned to the Generator Owners will be revised. Additional conforming changes will be made to measures and compliance elements in support of the revisions made to the requirements assigned to the Generator Owner.

The Violation Severity Levels Standard Drafting Team (Project 2007-23) has posted proposed Violation Severity Levels (VSLs) for FAC-008-1 and FAC-009-1. The SDT used the

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VSLs that the VSLDT developed for new requirements R4-R7 according to the mapping table below:

Old Standard	Old Requirement	New Standard	New Requirement
FAC-008-1	R2	FAC-008-2	R4
FAC-008-1	R3	FAC-008-2	R5
FAC-009-1	R1	FAC-008-2	R6
FAC-009-1	R2	FAC-008-2	R7

The SDT developed VSLs for new requirements R1-R3 in accordance with the latest version of the VSL guidelines. The revised VSLs for R1-R3 are consistent with the VSLs developed for other FAC-008-2 requirements.

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Reliability Functions

The Standard will Apply to the Following Functions <i>(Check box for each one that applies.)</i>		
<input type="checkbox"/>	Reliability Coordinator	Ensures the reliability of the bulk transmission system within its Reliability Authority area. This is the highest Reliability Authority.
<input type="checkbox"/>	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within its metered boundary and supports system frequency in real time.
<input type="checkbox"/>	Interchange Authority	Authorizes valid and balanced Interchange Schedules.
<input type="checkbox"/>	Planning Authority	Plans the Bulk Electric System.
<input type="checkbox"/>	Resource Planner	Develops a long-term (>one year) plan for the resource adequacy of specific loads within a Planning Authority area.
<input type="checkbox"/>	Transmission Planner	Develops a long-term (>one year) plan for the reliability of transmission systems within its portion of the Planning Authority area.
<input type="checkbox"/>	Transmission Service Provider	Provides transmission services to qualified market participants under applicable transmission service agreements
<input checked="" type="checkbox"/>	Transmission Owner	Owns transmission facilities.
<input type="checkbox"/>	Transmission Operator	Operates and maintains the transmission facilities, and executes switching orders.
<input type="checkbox"/>	Distribution Provider	Provides and operates the "wires" between the transmission system and the customer.
<input checked="" type="checkbox"/>	Generator Owner	Owns and maintains generation unit(s).
<input type="checkbox"/>	Generator Operator	Operates generation unit(s) and performs the functions of supplying energy and Interconnected Operations Services.
<input type="checkbox"/>	Purchasing-Selling Entity	The function of purchasing or selling energy, capacity, and all necessary Interconnected Operations Services as required.
<input type="checkbox"/>	Market Operator	Integrates energy, capacity, balancing, and transmission resources to achieve an economic, reliability-constrained dispatch.
<input type="checkbox"/>	Load-Serving Entity	Secures energy and transmission (and related generation services) to serve the end user.

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Reliability and Market Interface Principles

Applicable Reliability Principles <i>(Check box for all that apply.)</i>	
<input checked="" type="checkbox"/>	1. Interconnected bulk electric systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
<input type="checkbox"/>	2. The frequency and voltage of interconnected bulk electric systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
<input checked="" type="checkbox"/>	3. Information necessary for the planning and operation of interconnected bulk electric systems shall be made available to those entities responsible for planning and operating the systems reliably.
<input type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk electric systems shall be developed, coordinated, maintained and implemented.
<input type="checkbox"/>	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk electric systems.
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk electric systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk electric systems shall be assessed, monitored and maintained on a wide area basis.
Does the proposed Standard comply with all of the following Market Interface Principles? <i>(Select 'yes' or 'no' from the drop-down box.)</i>	
1. The planning and operation of bulk electric systems shall recognize that reliability is an essential requirement of a robust North American economy. Yes	
2. An Organization Standard shall not give any market participant an unfair competitive advantage. Yes	
3. An Organization Standard shall neither mandate nor prohibit any specific market structure. Yes	
4. An Organization Standard shall not preclude market solutions to achieving compliance with that Standard. Yes	
5. An Organization Standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards. Yes	

Standards Authorization Request Form

Related Standards

Standard No.	Explanation

Related SARs

SAR ID	Explanation

Regional Differences

Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
SERC	
RFC	
SPP	
WECC	

The drafting team that developed the version of FAC-008-2 that was balloted in late 2008 referenced these guidelines in determining what changes to make to the standards to bring them into conformance with the *Reliability Standards Development Procedure Manual, Version 6.1* and the *ERO Rules of Procedure*:

Standard Review Guidelines

Applicability

Does this reliability standard clearly identify the functional classes of entities responsible for complying with the reliability standard, with any specific additions or exceptions noted? Where multiple functional classes are identified is there a clear line of responsibility for each requirement identifying the functional class and entity to be held accountable for compliance? Does the requirement allow overlapping responsibilities between Registered Entities possibly creating confusion for who is ultimately accountable for compliance?

Does this reliability standard identify the geographic applicability of the standard, such as the entire North American bulk power system, an interconnection, or within a regional entity area? If no geographic limitations are identified, the default is that the standard applies throughout North America.

Does this reliability standard identify any limitations on the applicability of the standard based on electric facility characteristics, such as generators with a nameplate rating of 20 MW or greater, or transmission facilities energized at 200 kV or greater or some other criteria? If no functional entity limitations are identified, the default is that the standard applies to all identified functional entities.

Purpose

Does this reliability standard have a clear statement of purpose that describes how the standard contributes to the reliability of the bulk power system? Each purpose statement should include a value statement.

Performance Requirements

Does this reliability standard state one or more performance requirements, which if achieved by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practices and the public interest?

Does each requirement identify who shall do what under what conditions and to what outcome?

Measurability

Is each performance requirement stated so as to be objectively measurable by a third party with knowledge or expertise in the area addressed by that requirement?

Does each performance requirement have one or more associated measures used to objectively evaluate compliance with the requirement?

If performance results can be practically measured quantitatively, are metrics provided within the requirement to indicate satisfactory performance?

Technical Basis in Engineering and Operations

Is this reliability standard based upon sound engineering and operating judgment, analysis, or experience, as determined by expert practitioners in that particular field?

Completeness

Is this reliability standard complete and self-contained? Does the standard depend on external information to determine the required level of performance?

Consequences for Noncompliance

In combination with guidelines for penalties and sanctions, as well as other ERO and regional entity compliance documents, are the consequences of violating a standard clearly known to the responsible entities?

Clear Language

Is the reliability standard stated using clear and unambiguous language? Can responsible entities, using reasonable judgment and in keeping with good utility practices, arrive at a consistent interpretation of the required performance?

Practicality

Does this reliability standard establish requirements that can be practically implemented by the assigned responsible entities within the specified effective date and thereafter?

Capability Requirements versus Performance Requirements

In general, requirements for entities to have ‘capabilities’ (this would include facilities for communication, agreements with other entities, etc.) should be located in the standards for certification. The certification requirements should indicate that entities have a responsibility to ‘maintain’ their capabilities.

Consistent Terminology

To the extent possible, does this reliability standard use a set of standard terms and definitions that are approved through the NERC reliability standards development process?

If the standard uses terms that are included in the NERC Glossary of Terms Used in Reliability Standards, then the term must be capitalized when it is used in the standard. New terms should not be added unless they have a ‘unique’ definition when used in a NERC reliability standard. Common terms that could be found in a college dictionary should not be defined and added to the NERC Glossary.

Violation Risk Factors (Risk Factor)

Identify the potential reliability significance of a violation of the associated requirement. Each requirement must have an associated VRF.

A **High Risk Factor** requirement:

- (a) is one that, if violated, could directly cause or contribute to bulk power system instability, separation, or a cascading sequence of failures, or could place the bulk power system at an unacceptable risk of instability, separation, or cascading failures; or
- (b) is a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk power system instability, separation, or a cascading sequence of failures, or could place the bulk power system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

A **Medium Risk Factor** requirement:

- (a) is a requirement that, if violated, could directly affect the electrical state or the capability of the bulk power system, or the ability to effectively monitor and control the bulk power system, but is unlikely to lead to bulk power system instability, separation, or cascading failures; or
- (b) is a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly affect the electrical state or capability of the bulk power system, or the ability to effectively monitor, control, or restore the bulk power system, but is unlikely, under emergency, abnormal, or restoration conditions

anticipated by the preparations, to lead to bulk power system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

A **Lower Risk Factor** requirement is administrative in nature and:

(a) is a requirement that, if violated, would not be expected to affect the electrical state or capability of the bulk power system, or the ability to effectively monitor and control the bulk power system; or

(b) is a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to affect the electrical state or capability of the bulk power system, or the ability to effectively monitor, control, or restore the bulk power system.

Time Horizon

The drafting team should also indicate the time horizon available for mitigating a violation to the requirement using the following definitions:

- **Long-term Planning** — a planning horizon of one year or longer.
- **Operations Planning** — operating and resource plans from day-ahead up to and including seasonal.
- **Same-day Operations** — routine actions required within the timeframe of a day, but not real-time.
- **Real-time Operations** — actions required within one hour or less to preserve the reliability of the bulk electric system.
- **Operations Assessment** — follow-up evaluations and reporting of real time operations.

Violation Severity Levels

The drafting team should develop a set of violation severity levels that can be applied for the requirements within the standard.

The violation severity levels should be based on the following criteria:

Define the degree to which compliance with a requirement was not achieved. Each requirement must have at least one VSL. While it is preferable to have four VSLs for each requirement, some requirements do not have multiple “degrees” of noncompliant performance and may have only one, two, or three VSLs.

Lower	Moderate	High	Severe
<p>Missing a minor element (or a small percentage) of the required performance</p> <p>The performance or product measured has significant value as it almost meets the full intent of the requirement.</p>	<p>Missing at least one significant element (or a moderate percentage) of the required performance.</p> <p>The performance or product measured still has significant value in meeting the intent of the requirement.</p>	<p>Missing more than one significant element (or is missing a high percentage) of the required performance or is missing a single vital component.</p> <p>The performance or product has limited value in meeting the intent of the requirement.</p>	<p>Missing most or all of the significant elements (or a significant percentage) of the required performance.</p> <p>The performance measured does not meet the intent of the requirement or the product delivered cannot be used in meeting the intent of the requirement.</p>

Compliance Monitor

Replace, “Regional Reliability Organization” with “Regional Entity.”
Replace “NERC” with “ERO.”

Fill-in-the-blank Requirements

Do not include any ‘fill-in-the-blank’ requirements. These are requirements that assign one entity responsibility for developing some performance measures without requiring that the performance measures be included in the body of a standard – then require another entity to comply with those requirements.

Every reliability objective can be met, at least at a threshold level, by a North American standard. If we need regions to develop regional standards, such as in under-frequency load shedding, we can always write a uniform North American standard for the applicable functional entities as a means of encouraging development of the regional standards.

Requirements for Regional Reliability Organization

Do not write any requirements for the Regional Reliability Organization. Any requirements currently assigned to the RRO should be re-assigned to the applicable functional entity.

Effective Dates

Must be 1st day of 1st quarter after entities are expected to be compliant – must include time to file with regulatory authorities and provide notice to responsible entities of the obligation to comply. If the standard is to be actively monitored, time for the Compliance Monitoring and Enforcement Program to develop reporting instructions and modify the Compliance Data Management System(s) both at NERC and Regional Entities must be provided in the implementation plan.

Associated Documents

If there are standards that are referenced within a standard, list the full name and number of the standard under the section called, ‘Associated Documents’.

Functional Model Version 3

Review the requirements against the latest descriptions of the responsibilities and tasks assigned to functional entities as provided in pages 13 through 53 of the draft Functional Model Version 3.

A. Introduction

1. **Title:** Facility Ratings
2. **Number:** FAC-008-2
3. **Purpose:** To ensure that Facility Ratings used in the reliable planning and operation of the Bulk Electric System (BES) are determined based on technically sound principles. A Facility Rating is essential for the determination of System Operating Limits.
4. **Applicability**
 - Transmission Owner.
 - Generator Owner.
5. **Effective Date:** The first day of the first calendar quarter that is twelve months beyond the date approved by applicable regulatory authorities, or in those jurisdictions where regulatory approval is not required, the first day of the first calendar quarter twelve months following BOT adoption.

B. Requirements

- R1. Each Generator Owner shall have documentation for determining the Facility Ratings of its solely and jointly owned ~~turbine-generator~~ Facility(ies) up to the ~~generator terminals or the~~ low side terminals of the step up transformer if the Generator Owner does not own the step up transformer and ~~, or the high side terminals~~ of the step up transformer if the Generator Owner owns the step up transformer ~~(location as specified by the Generator Owner)~~. [Violation Risk Factor: Lower~~Medium~~] [Time Horizon: Long-term Planning]
 - 1.1. The documentation shall contain assumptions used to rate the generator and at least one of the following:
 - 1.1.1. Design or construction information such as design criteria, ratings provided by equipment manufacturers, equipment drawings and/or specifications, engineering analyses, method(s) consistent with industry standards (e.g. ANSI and IEEE), or an established engineering practice having a successful implementation record.
 - 1.1.2. Operational information such as commissioning test results, performance testing or historical performance records, any of which may be supplemented by engineering analyses.
 - 1.2. The documentation shall be ~~capable of demonstrating~~ consistent with the principle that the Facility Ratings do not exceed the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
- R2. Each Generator Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings mMethodology) of its solely and jointly owned equipment connected between the ~~generator terminals, or the low voltage side of the step up transformer, or the high voltage side of the transformer~~ ~~(consistent with~~ location specified in R1 ~~by the Generator Owner)~~ and the point of interconnection with the Transmission Owner that contains all of the following. [Violation Risk Factor: Lower~~Medium~~] [Time Horizon: Long-term Planning]
 - 2.1. The methodology used to establish the Ratings of the eEquipment that comprises the Facility(ies) shall be consistent with at least one of the following:
 - 2.1.1. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating.

- 2.1.2. One or more industry standards developed through an open process such as Institute of Electrical and Electronic Engineers (IEEE) or International Council on Large Electric Systems (CIGRE).
 - 2.1.3. A practice that has been verified by testing, [performance history](#) or engineering analysis.
 - 2.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in Requirement R2, Part 2.1 including identification of how each of the following were considered:
 - 2.2.1. Equipment Rating standard(s) used in development of this methodology.
 - 2.2.2. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications.
 - 2.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).
 - 2.2.4. Operating limitations.¹
 - 2.3. A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
 - 2.4. [The process by which the Rating of equipment that comprises a Facility is determined.](#)
 - 2.4.1. The scope of equipment addressed shall include, but not limited to, conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
 - ~~2.4.2.4.2.~~ [The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.](#)
- R3. Each Transmission Owner shall each have a documented methodology for determining Facility Ratings (Facility Ratings ~~m~~Methodology) of its solely and jointly owned Facilities (except for those generating unit Facilities addressed in R1 [and R2](#)) that contains all of the following: *[Violation Risk Factor: Medium] [Time Horizon: Long-term Planning]*
 - 3.1. The methodology used to establish the Ratings of the ~~e~~Equipment that comprises the Facility shall be consistent with at least one of the following:
 - 3.1.1. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating.
 - 3.1.2. One or more industry standards developed through an open process such as Institute of Electrical and Electronics Engineers (IEEE) or International Council on Large Electric Systems (CIGRE).
 - 3.1.3. A practice that has been verified by testing, [performance history](#) or engineering analysis.
 - 3.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in [Requirement R3, Part 3.2.1](#) including identification of how each of the following were considered:
 - 3.2.1. Equipment Rating standard(s) used in development of this methodology.

¹ Such as temporary de-ratings of impaired equipment in accordance with good utility practice.

- 3.2.2. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications.
 - 3.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).
 - 3.2.4. Operating limitations.²
 - 3.3. A statement that a Facility Rating shall respect the most limiting applicable Equipment Rating of the individual equipment that comprises that Facility.
 - 3.4. The process by which the Rating of equipment that comprises a Facility is determined.
 - 3.4.1. The scope of equipment addressed shall include, but not be limited to, transmission conductors, transformers, relay protective devices, terminal equipment, and series and shunt compensation devices.
 - 3.4.2. The scope of Ratings addressed shall include, as a minimum, both Normal and Emergency Ratings.
 - R4. Each Transmission Owner shall make its Facility Ratings [mMethodology](#) and each Generator Owner shall each make its documentation for determining its Facility Ratings [and its Facility Ratings methodology](#) available for inspection and technical review by those Reliability Coordinators, Transmission Operators, Transmission Planners and Planning Coordinators that have responsibility for the area in which the associated Facilities are located, within 21 calendar days of receipt of a request. *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*
 - R5. If a Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator provides documented comments on its technical review of a Transmission Owner's Facility Ratings [mMethodology](#) or Generator Owner's documentation for determining its Facility Ratings [and its Facility Rating methodology](#), the Transmission Owner or Generator Owner shall provide a response to that commenting entity within 45 calendar days of receipt of those comments. The response shall indicate whether a change will be made to the Facility Ratings [mMethodology](#) and, if no change will be made to that Facility Ratings [Mmethodology](#), the reason why. *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*
 - R6. Each Transmission Owner and Generator Owner shall have Facility Ratings for its solely and jointly owned Facilities that are consistent with the associated Facility Ratings [mMethodology](#) or documentation for determining its Facility Ratings. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*
 - R7. Each Transmission Owner and Generator Owner shall provide Facility Ratings for its solely and jointly owned Facilities that are existing Facilities, new Facilities, modifications to existing Facilities and re-ratings of existing Facilities to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), [Transmission Owner\(s\)](#) and Transmission Operator(s) as scheduled by such requesting entities. *[Violation Risk Factor: Medium] [Time Horizon: Operations Planning]*

C. Measures

- M1. Each Generator Owner shall have documentation that shows how its Facility Ratings were determined as identified in Requirement 1.

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

- M2. Each Generator Owner shall have a documented Facility Ratings ~~m~~Methodology that includes all of the items identified in Requirement 2, Parts 2.1 through 2.4.
- M3. Each Transmission Owner shall each have a documented Facility Ratings ~~m~~Methodology that includes all of the items identified in Requirement 3, Parts 3.1 through 3.4.
- M4. Each Transmission Owner ~~and Generator Owner~~ shall ~~each~~ have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it made its Facility Ratings ~~m~~Methodology available for inspection within 21 calendar days of a request in accordance with Requirement 34. The Generator Owner shall have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it made its documentation for determining the Facility Ratings or its Facility Ratings methodology available for inspection within 21 calendar days of a request in accordance with Requirement 4.
- M5. If the Reliability Coordinator, Transmission Operator, Transmission Planner or Planning Coordinator provides documented comments on its technical review of a Transmission Owner's or Generator Owner's Facility Ratings ~~m~~Methodology or a Generator Owner's documentation for determining the Facility Ratings, the Transmission Owner or Generator Owner shall have evidence, (such as a copy of a dated electronic or hard copy note, or other comparable evidence from the Transmission Owner or Generator Owner addressed to the commenter that includes the response to the comment,) that it provided a response to that commenting entity in accordance with Requirement 5.
- M6. Each Transmission Owner and Generator Owner shall have evidence to show that its Facility Ratings are consistent with the documentation used to develop its Facility Ratings as specified in Requirement R1 or consistent with its Facility Ratings ~~m~~Methodology as specified in Requirements R2 and R3 (Requirement 6).
- M7. Each Transmission Owner and Generator Owner shall have evidence, such as a copy of a dated electronic note, or other comparable evidence to show that it provided its Facility Ratings to its associated Reliability Coordinator(s), Planning Coordinator(s), Transmission Planner(s), Transmission Owner(s) and Transmission Operator(s) in accordance with Requirement 7.

D. Compliance

1. Compliance Monitoring Process
 - 1.1. Compliance Enforcement Authority
Regional Entity
 - 1.2. Compliance Monitoring Period and Reset Timeframe
Not Applicable
 - 1.3. Compliance Monitoring and Enforcement Processes:
 - Self-Certifications
 - Spot Checking
 - Compliance Audits
 - Self-Reporting
 - Compliance Violation Investigations
 - Complaints
 - 1.4. Data Retention

The Generator Owner shall keep its current documentation (for R1) and any modifications to the documentation that were in force since last compliance audit period for Measure M1 and Measure M6.

The Generator Owner shall keep its current, in force Facility Ratings ~~m~~Methodology (for R2) and any modifications to the methodology that were in force since last compliance audit period for Measure M2 and Measure M6. The Transmission Owner shall keep its current, in force Facility Ratings ~~M~~methodology (for R3) and any modifications to the methodology that were in force since the last compliance audit for Measure M3 and Measure M6.

The Transmission Owner and Generator Owner shall keep its current, in force Facility Ratings and any changes to those ratings for three calendar years for Measure M6.

The Generator Owner and Transmission Owner shall each keep evidence for Measure M4, Measure M5, and Measure M7 for three calendar years.

If a Generator Owner or Transmission Owner is found non-compliant, it shall keep information related to the non-compliance until found compliant.

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

1.5. Additional Compliance Information

None

Violation Severity Levels

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	N/A	<p>The Generator Owner’s Facility Rating documentation did not address either of the following:</p> <ul style="list-style-type: none"> Requirement R1, Part 1.1.1 Requirement R1, Part 1.1.2. 	<p>The Generator Owner’s Facility Rating documentation did not address Requirement R1, Part 1.2.</p>	<p>The Generator Owner failed to provide documentation for determining its Facility Ratings.</p>
R2	<p>The Generator Owner failed to include in its Facility Rating <u>m</u>Methodology one of the following Parts of Requirement R2:</p> <p>◆2.1.1 ☐2.1.2</p> <ul style="list-style-type: none"> 2.1.3 2.2.1 2.2.2 2.2.3 2.2.4 	<p>The Generator Owner failed to include in its Facility Rating <u>m</u>Methodology two of the following Parts of Requirement R2:</p> <p>◆2.1.1 ☐2.1.2</p> <ul style="list-style-type: none"> 2.1.3 2.2.1 2.2.2 2.2.3 2.2.4 	<p>The Generator Owner’s Facility Rating methodology did not address all the components of Requirement R2, Part 2.4.</p> <p>OR</p> <p>The Generator Owner failed to include in its Facility Rating Methodology, three of the following Parts of Requirement R2:</p> <p>◆2.1.1 ☐2.1.2</p> <ul style="list-style-type: none"> 2.1.3 2.2.1 2.2.2 2.2.3 2.2.4 	<p>The Generator Owner’s Facility Rating <u>m</u>Methodology failed to recognize a facility's rating based on the most limiting component rating as required in Requirement R2, Part 2.3</p> <p>OR</p> <p>The Generator Owner failed to include in its Facility Rating Methodology four or more of the following Parts of Requirement R2:</p> <p>◆2.1.1 ☐2.1.2</p> <ul style="list-style-type: none"> 2.1.3 2.2.1 2.2.2 2.2.3 2.2.4

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R3	<p>The Transmission Owner failed to include in its Facility Rating <u>m</u>Methodology one of the following Parts of Requirement R3:</p> <ul style="list-style-type: none"> • 3.1.1 □ 3.1.2 • 3.1.3 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 	<p>The Transmission Owner failed to include in its Facility Rating <u>m</u>Methodology two of the following Parts of Requirement R3:</p> <ul style="list-style-type: none"> • 3.1.1 □ 3.1.2 • 3.1.3 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 	<p>The Transmission Owner’s Facility Rating <u>m</u>Methodology did not address either of the following Parts of Requirement R3:</p> <ul style="list-style-type: none"> • 3.4.1 • 3.4.2 <p>OR</p> <p>The Transmission Owner failed to include in its Facility Rating <u>m</u>Methodology three of the following Parts of Requirement R3:</p> <ul style="list-style-type: none"> • 3.1.1 □ 3.1.2 • 3.1.3 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4 	<p>The Transmission Owner’s Facility Rating <u>m</u>Methodology failed to recognize a Facility's rating based on the most limiting component rating as required in Requirement R3, Part 3.3</p> <p>OR</p> <p>The Transmission Owner failed to include in its Facility Rating <u>m</u>Methodology four or more of the following Parts of Requirement R3:</p> <ul style="list-style-type: none"> • 3.1.1 □ 3.1.2 • 3.1.3 • 3.2.1 • 3.2.2 • 3.2.3 • 3.2.4
R4	<p>The responsible entity made its Facility Ratings <u>m</u>Methodology or Facility Ratings documentation available within more than 21 calendar days but less than or equal to 31 calendar days after a request. (R3)</p>	<p>The responsible entity made its Facility Ratings <u>m</u>Methodology or Facility Ratings documentation available within <u>more than</u> 31 calendar days but less than or equal to 41 calendar days after a request.</p>	<p>The responsible entity made its Facility Rating <u>m</u>Methodology or Facility Ratings documentation available within more than 41 calendar days but less than or equal to 51 calendar days after a request.</p>	<p>The responsible entity failed to make its Facility Ratings <u>m</u>Methodology or Facility Ratings documentation available in more than 51 calendar days after a request. (R3)</p>
R5	<p>The responsible entity provided a response in more than 45 calendar days but less than or equal to 60</p>	<p>The responsible entity provided a response in more than 60 calendar days but less than or equal to 70</p>	<p>The responsible entity provided a response in more than 70 calendar days but less than ore equal to 80</p>	<p>The responsible entity failed to provide a response as required in more than 80 calendar days after</p>

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
	calendar days after a request. (R5)	calendar days after a request. OR The responsible entity provided a response within 45 calendar days, and the response indicated that a change will not be made to the Facility Ratings mMethodology or Facility Ratings documentation but did not indicate why no change will be made. (R5)	calendar days after a request. OR The responsible entity provided a response within 45 calendar days, but the response did not indicate whether a change will be made to the Facility Ratings mMethodology or Facility Ratings documentation . (R5)	the comments were received. (R5)
R6	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings mMethodology or documentation for determining the Facility Ratings for 5% or less of its solely owned and jointly owned Facilities. (R6)	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings mMethodology or documentation for determining the Facility Ratings for more than 5% or more, but less than up to (and including) 10% of its solely owned and jointly owned Facilities. (R6)	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings mMethodology or documentation for determining the Facility Ratings for more than 10% up to (and including) 15% of its solely owned and jointly owned Facilities. (R6)	The responsible entity failed to establish Facility Ratings consistent with the associated Facility Ratings mMethodology or documentation for determining the Facility Ratings for more than 15% of its solely owned and jointly owned Facilities. (R6)
R7	The responsible entity provided its Facility Ratings to all of the requesting entities but missed meeting the schedules by up to 15 calendar days. (R7)	The responsible entity provided its Facility Ratings to all of the requesting entities but missed meeting the schedules by more than 15 calendar days but less than or equal to 25 calendar days. (R7)	The responsible entity provided its Facility Ratings to all of the requesting entities but missed meeting the schedules by more than 25 calendar days but less than or equal to 35 calendar days. (R7)	The responsible entity provided its Facility Ratings to all of the requesting entities but missed meeting the schedules by more than 35 calendar days. (R7)