

## Agenda

### Project 2009-06 — Facility Ratings SDT

October 9, 2009 | 2:00 pm– 4:00 pm EDT  
Dial-In Number: (866) 740-1260 | Access Code: 6519455

Visual Access:  
<https://cc.readytalk.com/r/upn1dbsu9nt>

1. **Administration**
  - a. Introductions
  - b. NERC Anti-trust Guidelines
2. **Review “Suggested Changes” document and determine responses**
3. **Develop responses to Stakeholder Comments on the SAR**
4. **Summarize action items**
5. **Schedule future meetings**
  - a. TBD
6. **Adjourn**

## Antitrust Compliance Guidelines

### I. General

It is NERC's policy and practice to obey the antitrust laws and to avoid all conduct that unreasonably restrains competition. This policy requires the avoidance of any conduct that violates, or that might appear to violate, the antitrust laws. Among other things, the antitrust laws forbid any agreement between or among competitors regarding prices, availability of service, product design, terms of sale, division of markets, allocation of customers or any other activity that unreasonably restrains competition.

It is the responsibility of every NERC participant and employee who may in any way affect NERC's compliance with the antitrust laws to carry out this commitment.

Antitrust laws are complex and subject to court interpretation that can vary over time and from one court to another. The purpose of these guidelines is to alert NERC participants and employees to potential antitrust problems and to set forth policies to be followed with respect to activities that may involve antitrust considerations. In some instances, the NERC policy contained in these guidelines is stricter than the applicable antitrust laws. Any NERC participant or employee who is uncertain about the legal ramifications of a particular course of conduct or who has doubts or concerns about whether NERC's antitrust compliance policy is implicated in any situation should consult NERC's General Counsel immediately.

### II. Prohibited Activities

Participants in NERC activities (including those of its committees and subgroups) should refrain from the following when acting in their capacity as participants in NERC activities (e.g., at NERC meetings, conference calls and in informal discussions):

- Discussions involving pricing information, especially margin (profit) and internal cost information and participants' expectations as to their future prices or internal costs.
- Discussions of a participant's marketing strategies.
- Discussions regarding how customers and geographical areas are to be divided among competitors.

- Discussions concerning the exclusion of competitors from markets.
- Discussions concerning boycotting or group refusals to deal with competitors, vendors or suppliers.
- Any other matters that do not clearly fall within these guidelines should be reviewed with NERC's General Counsel before being discussed.

### **III. Activities That Are Permitted**

From time to time decisions or actions of NERC (including those of its committees and subgroups) may have a negative impact on particular entities and thus in that sense adversely impact competition. Decisions and actions by NERC (including its committees and subgroups) should only be undertaken for the purpose of promoting and maintaining the reliability and adequacy of the bulk power system. If you do not have a legitimate purpose consistent with this objective for discussing a matter, please refrain from discussing the matter during NERC meetings and in other NERC-related communications.

You should also ensure that NERC procedures, including those set forth in NERC's Certificate of Incorporation, Bylaws, and Rules of Procedure are followed in conducting NERC business.

In addition, all discussions in NERC meetings and other NERC-related communications should be within the scope of the mandate for or assignment to the particular NERC committee or subgroup, as well as within the scope of the published agenda for the meeting.

No decisions should be made nor any actions taken in NERC activities for the purpose of giving an industry participant or group of participants a competitive advantage over other participants. In particular, decisions with respect to setting, revising, or assessing compliance with NERC reliability standards should not be influenced by anti-competitive motivations.

Subject to the foregoing restrictions, participants in NERC activities may discuss:

- Reliability matters relating to the bulk power system, including operation and planning matters such as establishing or revising reliability standards, special operating procedures, operating transfer capabilities, and plans for new facilities.
- Matters relating to the impact of reliability standards for the bulk power system on electricity markets, and the impact of electricity market operations on the reliability of the bulk power system.
- Proposed filings or other communications with state or federal regulatory authorities or other governmental entities.
- Matters relating to the internal governance, management and operation of NERC, such as nominations for vacant committee positions, budgeting and assessments, and employment matters; and procedural matters such as planning and scheduling meetings.

NERC FAC-008-2  
Revisions suggested via comments

Paragraph	Suggested revision	Q	Source	Accept, Reject or Accept with Modifications
R1	parentheses should read: “consistent with the change in ownership between the Generator and Transmission Owners.”	1	Electric Market Policy	Accept; add to R1
R1.1.1	Replace “an established engineering practice having a successful implementation record” with “A practice that has been verified by testing or engineering analysis”	1	EMP	Modify: “An established engineering practice that has been verified by testing or engineering analysis.”
R1.1.2	“Test to failure” is not an appropriate means to rate a facility	1	EMP	We agree, however the requirement does not indicate this. Testing is one way to satisfy the Req.
R1	“ambient, operating limitations” should also apply	1	Great River Energy	Reject: Already covered implicitly in eng. Analysis.
R1	“Turbine-generator” may be interpreted to exclude hydro-generators	1	Ontario Power Generation	We will revise to say “generator” rather than turbine-generator.
R1	Use the term “ <b>up to the Point of Interconnection</b> ”, which would eliminate the need for R2.	1	OPG	Reject: Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Also revised parenthetical in R1 to: “consistent with the change in ownership between the Generator and Transmission Owners.”
R1	Scope should include only electrical equipment from the generator out to the point of interconnection and electrical equipment between the generator and the point of interconnection.	1	Xcel Energy	Reject: Refer to definition of “Facility” in glossary. Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Removing the word “turbine” from R1 provides clarity.
R1	demarcation point should be <b>the point of interconnection with the transmission system</b>	1	Ameren	Reject: Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating

				and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Also revised parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners."
R1.2	"Capable of demonstrating consistency..." is ambiguous. <b>Performance testing and periodic capability tests</b> will embody any applicable equipment rating.	1	SPS Energy	We have revised R1.2 to: "The documentation shall be 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."
R1.1	Clarified to read: "The documentation shall contain design/ construction information and/or Operational Information as follows:"	1	SCE&G	Reject: Redundant and does not provide additional clarity.
	clarify whether the requirement references Real (MW) and Reactive (MVAR) Power	1	AEP	Reject. Refer to definition of "Facility Rating"
R1	Generator Owners and Transmission Owners to decide the "boundary",	1	Northeast Power Coordinating Council	Reject: Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Also revised parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners."
	the term "turbine" created a problem	1	US Bureau of Reclamation	Accept; we removed "Turbine"
R1.2	The wording "do not exceed" needs to be replaced by "corresponds to".	2	Dynegy Inc.	Reject: Point of R1.2 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not "correspond to".
R1	Add to R1 a similar requirement as stated in sub-part 2.2.4 of requirement R2 with regard to operating limitations.	3	FirstEnergy	For consistency and clarity, we have revised R1.1 to: "The documentation shall contain assumptions used to rate the generator and at least one of the following:"
R2	a minimum timeframe for consecutive operating hours during testing or operational tracking be established that when used in 1.1.2 would also be	3	FirstEnergy	For consistency and clarity, we have revised R1.1 to: "The documentation shall contain assumptions used to rate

	understood to meet sub-part 1.2.			the generator and at least one of the following:"
R1	Mirror sub-parts 2.2.1 through 2.2.3 of requirement R2 to account for engineering analysis that should be required or expected	3	FirstEnergy	For consistency and clarity, we have revised R1.1 to: "The documentation shall contain assumptions used to rate the generator and at least one of the following:"
R1	consistent with the change in ownership between the Generator and Transmission Owners	4	Electric Market Policy	See EMP comment in line 1 of table above.
	common point should be the Point of Interconnection	4	Ameren	Reject: Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Also revised parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners."
	rating for step-up transformers should be covered by R2, not R1	4	Independent Electricity System Operator IRC Standards Review Committee	Reject: It can be covered in either requirement, depending on ownership.
	the designation of "step up transformer" changed to " <b>main step up transformer</b> "	4	NextEra Energy Resources	Reject. Changed parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners" which provides the clarity that you imply.
R1	Needs a comma after the word "terminals"	4	Dynegy Inc	Ok
	use the high side of the <b>GSU</b> Transformer as the boundary	4	Xcel Energy	Reject. Changed parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners" which provides the clarity that you imply
R2.2.3	Eliminate	5	Dynegy Inc	Reject; Ambient Conditions are part of the underlying assumptions, however this was included in the standard at stakeholder request as a result of a Blackout Recommendation in a prior

				version of the SAR.
footnote to R2.2.4	Eliminate	5	Dynegy Inc	Reject
R2.3	"respect" should be changed to "corresponds to"	5	Dynegy Inc	Reject: Point of R1.2 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not "correspond to".
R2.3	Delete	5	SPS Energy	Reject: Point of R1.2 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not "correspond to".
	define Facility Ratings Methodology (FRM)	5	AEP	We changed "Methodology" to "methodology"
R2	R2 is largely <b>redundant</b>	5	Ontario Power Generation	Reject: Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Also revised parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners."
	(Keep R2 and then why R1?)	5	Calpine Corporation	Reject: Intent of R1 is to include the documentation on the generator (as defined by the Generator Owner) rating and R2 include the documentation of electrical equipment rating from the generator to the point of interconnection. Also revised parenthetical in R1 to: "consistent with the change in ownership between the Generator and Transmission Owners."
R2	address both <b>Normal and Emergency Ratings</b>	5	Electric Market Policy	Ok; We have revised R2.4 to match R3.4 and recognize that normal and emergency ratings may be the same ratings.
R2	Point of interconnection is not the same as point of ownership	5	Puget Sound Energy	We revised R2 to remove "point of interconnection" and included the phrase "consistent with the change in ownership between the Generator and Transmission

				Owners.”
	“the point of interconnection” changed to “the <b>point of interconnection or change in ownership</b> ”	5	NextEra Energy Resources	We revised R2 to remove “point of interconnection” and included the phrase “consistent with the change in ownership between the Generator and Transmission Owners.”
R1.1.2	Deleted “any of which may be supplemented by engineering analyses”	6	Independent Electricity System Operator	We disagree. Removal of the phrase will not allow the flexibility of using engineering analysis for compliance with the requirement.
R3	2 sets of VSLs for R3. We believe the second R3 should read R4	6	IESO	Yes; revised appropriately
	Applicability - The bullets should be removed	6	Electric Market Policy	OK. Removed bullets and replaced with 4.1 and 4.2
R2.3	change the word “respect” to “reflect”	6	Duke Energy	Reject: Point of R1.2 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not “correspond to”.
R2.4	Delete		Duke Energy	Reject; This corresponds to R3.4 for transmission equipment. Stakeholder consensus indicates that R2.4 should be retained.
R3.1.3	should be “A practice that has been verified by testing or engineering analysis.”		Duke Energy	Bullet format is corrected.
R3.3	change the word “respect” to “reflect”	6	Duke Energy	Reject: Point of R1.2 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not “reflect”.
R3.4	Strike the phrase “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.”	6	Duke Energy	Stakeholder consensus indicates that R3.4 should be retained.
R3.4	R3.4.2 should become the new R3.4	6	Duke Energy	Stakeholder consensus indicates that R3.4 should be retained.
	Measures “ Change 2.4 to 2.3 under M2. Delete “3” under M4. Delete “4” under M5.	6	Duke Energy	Measures were revised to be consistent with revisions to the requirements.
R2 VSL	In all four VSLs, 2.1.1 through 2.1.3 should be replaced with just 2.1.	6	Duke Energy	Accept
R3 VSL	all four VSLs, 3.1.1 through 3.1.3 should be replaced with just 3.1	6	Duke Energy	accept
R4 VSL	Change R# to R4 from R3 (three places)	6	Duke Energy	This is the table heading and should be



				R#
R7 VSL	move Moderate VSL to Lower, High VSL to Moderate, Severe VSL to High and cap it at 45 days, and create a new Severe VSL for more than 45 days late.	6	Duke Energy	Review VSLs
R4 and R5	require the GO to have both its "documentation" (related to R1) and its Facility Ratings Methodology (relate to R2)	6	Dynegy Inc.	accept
R4	Replace bullets with 4.1 and 4.2 for consistency with other standards	6	FirstEnergy	Accept for applicability section
R.1.1.1 & R1.1.2	should be bulleted	6	NERC Standards Review Subcommittee (XCEL Energy)	Maureen: Is this correct?
R2.1 and R3.1	sub-requirements under R2.1 and R3.1 should be bulleted	6	NERC SRsc (XCEL Energy)	Maureen: Is this correct?
2.1 and 3.1	<i>Either:</i> add a new bullet with language identical to 1.1.2, or 2) modify the 3rd bullet under 2.1 (currently R2.1.3) and 3.1 (currently R3.1.3) with similar clarifying language as 1.1.2.	6	NERC SRsc (XCEL Energy)	R1.1.2 applies to generator equipment. R2 and R3 apply to non-generator equipment. It is not appropriate to apply R1.1.2 to R2 and R3.
R2.1 and R3.1	"Ratings of the Equipment" should be modified. "Rating" and "Equipment Rating" are both defined terms	6	NERC SRsc	Revised to "Ratings of equipment"
R3.2	reference to R2.1 in R3.2 should be changed to R3.1.	6	NERC SRsc (XCEL Energy)	Ok
R7	change "as scheduled" to "as requested".	6	XCEL Energy	"as scheduled" better reflects the intent of the requirement. Use of "as requested" might imply that an entity must respond immediately. This is not the intent of the requirement.
R1.1.2:	<i>Delete</i> "any of which may be supplemented by engineering analyses".	6	IRC Standards Review Committee	See previous
R3 VSL	We believe the second R3 should read R4.	6	IRC Standards Review Committee	yes
R7	should include Transmission Owner(s)	6	CenterPoint Energy	ok
R2 VSL	Lower R2 VSL, remove 2.1.1, 2.1.2, and 2.1.3 and replace them with 2.1	6	SERC Planning Standards	ok

			Subcommittee	
	lack of documentation or incomplete documentation should not rate a VSL of Severe	6	Manitoba Hydro	The VSL is only applied after a violation of the standard has been determined. We believe that you are confusing the violation risk factor with the violation severity level.
R2.1, 2.2, 3.1 and 3.2	<p>Revise as follows:</p> <p>R2.1. The methodology used to establish the Ratings of the Equipment that comprises the Facility(ies) shall be consistent with at least one of the following:</p> <p>R2.1.1. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating.</p> <p>R2.1.2. 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).</p> <p>R2.1.3. A practice that has been verified by testing or engineering analysis</p> <p>R2.1.4. Available records, data or operational experience for Equipment placed in-service prior to the effective date that does not have a methodology consistent with R2.1.1, R2.2 or R2.1.3.</p> <p>R2.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in R2, Part 2.1 including identification of how each of the following were considered:</p> <p>R2.2.1. Equipment Rating standard(s) used in development of this methodology.</p> <p>R2.2.2. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications, if available.</p> <p>R2.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).</p> <p>R3.1. The methodology used to establish the</p>	6	Manitoba Hydro	<p>Except for the verification component, adding this suggestion is redundant with 2.1.3 and 3.1.3. The words “a practice” include “operational experience” that show equipment loadings that equal the rating for the rating duration specified. The SDT believes such practice must be supportable via testing or engineering analysis. Your change would circumvent the verification.</p> <p>Operating Limitations (Part R2.2.4, which you omitted) are part of the underlying assumptions for the rating methodology which should be considered.</p>

	<p>Ratings of the Equipment that comprises the Facility(ies) shall be consistent with at least one of the following:</p> <p>R3.1.1. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications such as nameplate rating.</p> <p>R3.1.2. 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).</p> <p>R3.1.3. A practice that has been verified by testing or engineering analysis</p> <p>R3.1.4. Available records, data or operational experience for Equipment placed in-service prior to the effective date that does not have a methodology consistent with R3.1.1, R3.2 or R3.1.3.</p> <p>R3.2. The underlying assumptions, design criteria, and methods used to determine the Equipment Ratings identified in R3, Part 3.1 including identification of how each of the following were considered: R3.2.1. Equipment Rating standard(s) used in development of this methodology.</p> <p>R3.2.2. Ratings provided by equipment manufacturers or obtained from equipment manufacturer specifications, if available.</p> <p>R3.2.3. Ambient conditions (for particular or average conditions or as they vary in real-time).</p>			
R1.2	"do not exceed" should be replaced with " <b>correspond to</b> ".	6	Northeast Power Coordinating Council	Reject: Point of R1.2 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not "correspond to".
R2.3	"respect" should be replaced with "correspond to".	6	NE PCC	Point of R2.3 is to makes sure that most limiting facility is not exceeded. The rating may be lower, so therefore it does not "correspond to".
R3	The second "each" in the first line should be deleted.	6	NE PCC	ok
R3.2	the reference to R2.1 should be a reference to	6	NE PCC	ok

	R3.1.			
R2 .2 and R3.2	The sub-paragraphs under 2.2 and 3.2 repeat each other word for word with only one word of difference between Requirements R2 and R3: the use of “Generator” instead of “Transmission”. Suggest that those two Requirements be reviewed to see if they can be combined to eliminate duplication.	6	NE PCC	R2 includes the documentation of electrical equipment rating methodology from the generator to the change in ownership. R3 is for transmission equipment rating methodology.
VSL	Lower VSL for R2, remove 2.1.1, 2.1.2, and 2.1.3 and replace them with 2.1. 2.1 state that the methodology shall be consistent with at least one of 2.1.1, 2.1.2, and 2.1.3. This also applies to Moderate, High, and Severe VSLs for R2. This also applies to all 4 VSL levels for R3.	6	SCE&G	Agree and made change
R2.4:	Change “but not limited to” to “ <b>but not be limited to</b> ”	6	Omaha Public Power District	Agreed and made change
R3,	Strike the second occurrence of the word “each”.	6	OPPD	Agreed and made change
R3.2	It appears that “R2.1” was intended to be “R3.1”.	6	OPPD	Agreed and made change
M3:	Strike the second occurrence of the word “each”.	6	OPPD	Agreed and made change
M4:	It appears that “Requirement 34” was intended to be “Requirement 4”.	6	OPPD	Agreed and made change
M4, M5, R4, and R5:	M4 and M5 are inconsistent with R4 and R5 with regard to Generator Owners. R4 and R5 refer to a Generator Owner’s documentation for determining Facility Ratings but not its Facility Ratings Methodology, while M4 and M5 refer to a Generator Owner’s Facility Ratings Methodology but not its documentation for determining Facility Ratings.	6	OPPD	Revised to M4 and M5 to be consistent with revisions to R4 and R5 as you suggest.
R5:	The second sentence of R5 needs to be revised to include a reference to the Generator Owner’s documentation for determining Facility Ratings.	6	OPPD	Agreed and made change
M6:	Change “documentation used to develop its Facility Ratings” to “documentation for determining its Facility Ratings”	6	OPPD	Agreed and made change
R2.1.3	Suggest adding additional alternative, i.e. “performance history”.	6	AEP	Agreed and made change
	Footnote 1 and 2 should be included in the requirement if it is to be applicable	6	AEP	Reject; The footnotes only contain an example of such Operating Limitations.  Maureen – OK?

R2.2.4	temporary de-rates" should not be included in the equipment rating.	6	AEP	Operating Limitations (Part R2.2.4, footnote 1) are part of the underlying assumptions for the rating methodology which should be considered.
R3.2	typo "R2.1" should be "R3.1."	6	AEP	Agreed and made change
R3.4.1	should read "thermal capability of relay protective devices" instead of just "relay protective devices"	6	AEP	Disagree. R3.4.1 requires that the methodology include the "scope of equipment addressed" which includes the thermal capabilities of the relay as well as the relay settings.
R4	change in R4 was not necessary	6	AEP	Revisions to R4 were required to reflect revisions in verbiage of R1 and R2.
R7	Delete the phrase "modifications to existing Facilities and re-ratings of existing Facilities" since the term "existing Facilities" already covers the ratings (today or in the future)	6	AEP	We do not agree. The requirement provides needed clarity as written.
M1 and M2	How do M1 and M2 differ from one another?	6	AEP	M1 applies to R1 (generator equipment); M2 applies to R2 (from generator to change in ownership of facilities)
M6	M6 needs to be revised to be consistent with R1	6	US Bureau of Reclamation	Agreed and made revision.
R6	"The responsible entity failed to establish Facility Ratings utilizing the documentation used to determine its Facility Ratings as specified in R1 or Facility Ratings utilizing Facility Ratings Methodology as specified in R2 for X% or less of its solely owned and jointly owned Facilities. (R6)"	6	US Bureau of Reclamation	The VSL was revised to reflect the revisions to the requirement.
R 1.1.1 and R 1.1.2	follow the NERC definition for Facility and Facility Rating and explicitly limit the scope to electrical equipment only. this be clearly described in an appendix... and refer to MOD-024 and MOD-025 as the standards which demonstrate the real and reactive power capability of the Facility, but do not represent a generation facility's Facility Rating.	6	Calpine Corporation	We have removed the word "turbine" from R1. We believe that this will address your concern about "electrical" equipment only.  This standard (FAC-008) allows performance testing or historical performance records as a means to determine facility ratings as provided in MOD-024 and MOD-025, therefore the FRSDT does not believe that there is a need to explicitly name those standards here.

R3	R3 (except for those generating unit Facilities addressed in R1) should say (except for those generating unit Facilities addressed in R1 and R2)	6	Southern Company	Agreed and made revision
R3.2	R3.2 should be changed from "Equipment Ratings identified in R2.1" to read "Equipment Ratings identified in Requirement R3, Part 3.1.	6	Southern Company	Agreed and made change. The draft standard will be updated with the latest standard format prior to ballot.
	<i>Etc... Repetitious...</i>	6		?????????????
VSL	consideration of comments to the August comments stated that "The FR SDT reviewed the VRF guidelines and agrees with the suggestion to revise VRF to "Lower". VRFs in this current draft are Medium, not Lower.	6	Entergy Services, Inc	Agreed and changed VFR for R1 and R2 to Lower as stated in the August Consideration of Comments.