

Standard Authorization Request (SAR)

Complete and submit this form, with attachment(s) to the [NERC Help Desk](#). Upon entering the Captcha, please type in your contact information, and attach the SAR to your ticket. Once submitted, you will receive a confirmation number which you can use to track your request.

The North American Electric Reliability Corporation (NERC) welcomes suggestions to improve the reliability of the bulk power system through improved Reliability Standards.

Requested information			
SAR Title:	FAC-008 Facility Ratings		
Date Submitted:	07-14-2021		
SAR Requester			
Name:	Ryan Walter		
Organization:	Tri-State Generation and Transmission Association, Inc.		
Telephone:	303-254-3722	Email:	rwalter@tristategt.org
SAR Type (Check as many as apply)			
<input type="checkbox"/>	New Standard	<input type="checkbox"/>	Imminent Action/ Confidential Issue (SPM Section 10)
<input checked="" type="checkbox"/>	Revision to Existing Standard	<input type="checkbox"/>	Variance development or revision
<input checked="" type="checkbox"/>	Add, Modify or Retire a Glossary Term	<input type="checkbox"/>	Other (Please specify)
<input type="checkbox"/>	Withdraw/retire an Existing Standard		
Justification for this proposed standard development project (Check all that apply to help NERC prioritize development)			
<input type="checkbox"/>	Regulatory Initiation	<input type="checkbox"/>	NERC Standing Committee Identified
<input type="checkbox"/>	Emerging Risk (Reliability Issues Steering Committee) Identified	<input type="checkbox"/>	Enhanced Periodic Review Initiated
<input type="checkbox"/>	Reliability Standard Development Plan	<input checked="" type="checkbox"/>	Industry Stakeholder Identified
Industry Need (What Bulk Electric System (BES) reliability benefit does the proposed project provide?):			
Produce Generator Owner Facility Ratings that accurately reflect the real power capability of the facility and are therefore useful for reliability-related activities (such as in contingency analysis, SOL determination, etc.).			
Additionally, provide clarification around the phrase “jointly owned” and the level of individual component ratings that are required to be shared with the other entity. This will ensure clear expectations are set such that there are no gaps or conflicts between interconnecting entities.			
Purpose or Goal (How does this proposed project provide the reliability-related benefit described above?):			
As currently written, the FAC-008 Reliability Standard and associated defined terms “Facility” and “Element” have been interpreted by some to mean that only electrical components may be considered when developing Generator Facility Ratings under R1. This could lead to planning and operational entities being provided Generator Facility Ratings that are higher than the actual output the plant is capable of, which could be detrimental to reliability during actual system emergencies. Explicitly			

Requested information

allowing the inclusion of mechanical elements in the development of Facility Ratings will ensure Generators are rated to their most limiting element.

Further, the FAC-008-3 non-formal use of the term “jointly owned” is ambiguous when compared with the industry legacy use of “jointly owned” as a purely financial and contractual obligation. This lack of clarity of intent of the standard could cause risk of facility rating gaps, misunderstanding of rating overlap requirements or gaps in facility rating coordination that could be resolved by clearly defining the technical expectations of the term “jointly owned”.

Project Scope (Define the parameters of the proposed project):

The scope of this project would be to modify FAC-008 and any associated defined terms to address the following:

1. Clarify the term “jointly owned”, and what information is required to be shared with neighboring entities.
2. Permit inclusion of non-electrical equipment in the determination of GO Facility Ratings (R1).

Detailed Description (Describe the proposed deliverable(s) with sufficient detail for a drafting team to execute the project. If you propose a new or substantially revised Reliability Standard or definition, provide: (1) a technical justification¹ which includes a discussion of the reliability-related benefits of developing a new or revised Reliability Standard or definition, and (2) a technical foundation document (e.g., research paper) to guide development of the Standard or definition):

Requirement R1 of the FAC-008 Standard will be modified to allow Generator Owners the flexibility to include all applicable equipment at their facilities when determining their Facility Ratings. As currently written, some have interpreted requirement R1 to restrict Facility Ratings to only include electrical components. Generation facilities are often mechanically restricted by the performance capabilities of the turbines installed. By not allowing non-electrical equipment to be included, the GO may be developing and sharing Facility Ratings that are higher than the facility is actually capable. One possible solution to remedy this in the requirement is to add language permitting the inclusion of mechanical limitations, so long as the most limiting electrical component is not exceeded.

Generator Facility Ratings must be accurate to establish maximum capabilities for RC, TOP, and BA network models, resource adequacy studies, operational and contingency studies, outage reporting, and emergency response, as is reflected in FERC Order Approving Reliability Standard FAC-008-3 (Docket RD11-10-000), paragraph 10, “NERC states that the standard drafting team interpreted this directive to allow reliability entities to take rating information and prepare operating plans or planning assessments prior to real-time, which could allow for better situational awareness and improved reliability of the bulk electric system.”

¹ The NERC Rules of Procedure require a technical justification for new or substantially revised Reliability Standards. Please attach pertinent information to this form before submittal to NERC.

Requested information

The objectives of this SAR could be addressed in various ways. Here are a few ideas:

1. Alter the language within FAC-008, R1 to explicitly allow the inclusion of non-electrical components in Generator Facility Ratings documentation.
2. Generate a new NERC Defined term “Generation Facility”- This term would include the current NERC Glossary Term for “Facility”, but amend that definition to include the mechanical components of the generating plants.
 - a. R1 would then need to be modified to include this new definition where it currently utilizes the current definition of Facility.
3. Alter/expand the current definition of “Facility” to include components beyond “electrical components” as currently stated.
4. For “jointly owned” facilities, the following are potential solutions:
 - a. Add the term “electrically joined facilities” to the TO requirements, as it has been done in PRC-027-1. Here is an example:
“R3. Each Transmission Owner shall have a documented methodology for determining Facility Ratings (Facility Ratings methodology) of its solely owned, jointly owned, and electrically joined Facilities (except for those generating unit Facilities addressed in R1 and R2) that contains all of the following:”
 - b. Better define what “jointly owned” means by adding an applicable Facilities section, or a Standard Only Definition section, to the standard. For instance, the new Section could read:
Jointly Owned Facilities- a set of Element(s) at a single physical location where more than one Registered Entities are financially responsible for the repair, replacement, or installation of equipment at that site.
 - c. Better define what “jointly owned” means by creating implementation compliance guidance similar to the “CIP-002-5.1a R1 Shared Ownership of BES Facilities (CIPC)” implementation guidance.

Cost Impact Assessment, if known (Provide a paragraph describing the potential cost impacts associated with the proposed project):

Cost impacts for these changes should be minimal.

Entities would potentially need to reevaluate Generator Facility Ratings and associated Facility Rating documentation to include mechanical limitations.

Depending upon an entity’s current state and understanding of “jointly owned”, as it pertains to Transmission Facilities, additional resources could be required to perform facility ratings calculations and methodology changes consistent with the determined language from item 4 above.

Please describe any unique characteristics of the BES facilities that may be impacted by this proposed standard development project (e.g., Dispersed Generation Resources):

Requested information	
Generators, unlike the Transmission system of the electric grid, can be limited by both electrical and mechanical components. To correctly plan and operate the Bulk Electric System, Planning and Transmission Operations personnel need to be apprised of a generator’s actual limitations regardless of limiting factor.	
Coordination of Facility Ratings for formally defined “jointly owned” or “electrically joined” equipment could take time and require new coordination efforts between adjacent entities.	
To assist the NERC Standards Committee in appointing a drafting team with the appropriate members, please indicate to which Functional Entities the proposed standard(s) should apply (e.g., Transmission Operator, Reliability Coordinator, etc. See the most recent version of the NERC Functional Model for definitions):	
Transmission Owner, Generator Owner	
Do you know of any consensus building activities ² in connection with this SAR? If so, please provide any recommendations or findings resulting from the consensus building activity.	
No	
Are there any related standards or SARs that should be assessed for impact as a result of this proposed project? If so, which standard(s) or project number(s)?	
FAC-008-5, FAC-008-3	
If any of the defined terms are modified, all other standards that utilize those terms will need to be assessed for compatibility.	
Are there alternatives (e.g., guidelines, white paper, alerts, etc.) that have been considered or could meet the objectives? If so, please list the alternatives.	
An ERO Practice Guide, Compliance Guidance or Interpretation could be helpful to address these issues.	

Reliability Principles	
Does this proposed standard development project support at least one of the following Reliability Principles (Reliability Interface Principles)? Please check all those that apply.	
<input checked="" type="checkbox"/>	1. Interconnected bulk power 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 checked="" type="checkbox"/>	2. The frequency and voltage of interconnected bulk power 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 power 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 power 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 power systems.

² Consensus building activities are occasionally conducted by NERC and/or project review teams. They typically are conducted to obtain industry inputs prior to proposing any standard development project to revise, or develop a standard or definition.

Reliability Principles	
<input type="checkbox"/>	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
<input type="checkbox"/>	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
<input type="checkbox"/>	8. Bulk power systems shall be protected from malicious physical or cyber attacks.

Market Interface Principles	
Does the proposed standard development project comply with all of the following Market Interface Principles ?	Enter (yes/no)
1. A reliability standard shall not give any market participant an unfair competitive advantage.	Yes
2. A reliability standard shall neither mandate nor prohibit any specific market structure.	Yes
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard.	Yes
4. A reliability 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

Identified Existing or Potential Regional or Interconnection Variances	
Region(s)/ Interconnection	Explanation
<i>e.g., NPCC</i>	

For Use by NERC Only

SAR Status Tracking (Check off as appropriate).	
<input type="checkbox"/> Draft SAR reviewed by NERC Staff <input type="checkbox"/> Draft SAR presented to SC for acceptance <input type="checkbox"/> DRAFT SAR approved for posting by the SC	<input type="checkbox"/> Final SAR endorsed by the SC <input type="checkbox"/> SAR assigned a Standards Project by NERC <input type="checkbox"/> SAR denied or proposed as Guidance document

Version History

Version	Date	Owner	Change Tracking
1	June 3, 2013		Revised

1	August 29, 2014	Standards Information Staff	Updated template
2	January 18, 2017	Standards Information Staff	Revised
2	June 28, 2017	Standards Information Staff	Updated template
3	February 22, 2019	Standards Information Staff	Added instructions to submit via Help Desk
4	February 25, 2020	Standards Information Staff	Updated template footer