

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:	Cold Weather Preparedness and Communication Requirements between Functional Entities
Date Submitted:	September 20, 2019
SAR Requester	
Name:	Michael Desselle, VP Process Integrity/Chief Compliance and Administrative Officer
Organization:	Southwest Power Pool, Inc.
Telephone:	(501) 614-3206
Email:	mdesselle@spp.org
SAR Type (Check as many as apply)	
<input checked="" 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 checked="" 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?):	
To enhance the reliability of the BES during cold weather events by ensuring Generator Owners, Generator Operators, Reliability Coordinators, and Balancing Authorities prepare for cold weather conditions. Additionally, to ensure communications between functional entities of <u>all-ambient cold</u> weather impacts to generator unit availability.	
Purpose or Goal (How does this proposed project provide the reliability-related benefit described above?):	
To ensure optimal reliability by preparing generation for cold weather performance and ensure situational awareness in both planning and operations by applicable registered entities.	

Requested information

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

The project scope will address Recommendation 1 in the 2019 FERC and NERC Staff Report: The South-Central United States Cold Weather BES Event of January 17, 2018; and will include the development of new or revised NERC Reliability Standards to consider such activities as winterization activities on BES generating units, winter-specific and plant-specific operator awareness training, and processes to ensure situational awareness for the registered functions.

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):

Technical justification can be found in the findings and recommendations contained in the *2019 FERC and NERC Staff Report: The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018*, July 2019 at the following link: <https://www.ferc.gov/legal/staff-reports/2019/07-18-19-ferc-nerc-report.pdf>.

The deliverable will be new or revised Reliability Standards, as appropriate, to promote reliability of the BES during cold weather and ~~maximize to ensure that cold weather performance plans for BES~~ generating units are developed, implemented, and communicated in order to maintain BES generating unit availability within performance capabilities or operating limitations.

1. Generator Owner/Generator Operator² develops and implements cold weather preparedness plans, procedures, and awareness training based on factors such as geographical location and plant configurations. ~~Elements for consideration~~ may include:
 - a. The need for accurate cold weather temperature design specifications or historical demonstrated performance and operating limitations during cold weather ~~A generating unit's historical demonstrated performance and operating limitations during ambient cold weather;~~
 - b. Implementing freeze protection measures;
 - c. Performing periodic adequate maintenance and inspection of freeze protection measures; and
 - d. Providing advance notification (when available) of curtailments of natural gas to a supply to a gas-fueled BES ~~generating unit's~~ Reliability Coordinator and Balancing Authority.

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.

² The term Generator Owner/Generator Operator used throughout the SAR is a used as a broad categorization rather than a definitive requirement for both entities. The intention is for the Standard Drafting Team to determine the appropriate responsible entity based on the NERC Glossary of Terms and functional obligations defined in the standards.

Requested information

2. Generator Owner/Generator Operator communicates with the Balancing Authorities, ~~and~~ Reliability Coordinators, ~~and Transmission Operators~~ the BES generating unit's associated ~~design specification or~~ historical demonstrated performance and operating limitations during ~~ambient~~ cold weather, ~~including as required by deliverable 1d.~~
3. Generator Owner/Generator Operator communicates with the Balancing Authorities, ~~and~~ Reliability Coordinators, ~~and Transmission Operator~~ when local forecasted ~~ambient cold~~ weather conditions ~~(including, but not limited to, cold weather temperatures)~~ are expected to ~~impact generating unit performance or limit BES~~ generating unit ~~performance or BES generating unit~~ availability, ~~for the appropriate next day operating horizon.~~
4. Reliability Coordinators, ~~and~~ Balancing Authorities, ~~and Transmission Operator~~ ~~incorporates use of the~~ ~~data, as communicated in generating unit performance and availability provided through~~ deliverable ~~#2 and~~ #3 above, to perform their respective Operational Planning Analysis, develop its Operating Plans, or determine the expected availability ~~and of~~ contingency reserves for the appropriate next day operating horizon.

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

Cost impact is unknown. However, a question should be asked during the SAR comment period to ensure all aspects are considered.

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

Each BES facility considered here may have numerous unique characteristics based on factors such as construction, technical configuration, geographic differences, etc. The substantive differences may require flexibility for each generation resource to develop the appropriate plans to implement during cold weather events.

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):

Balancing Authority, Generator Operator, Generator Owner, Reliability Coordinator, ~~Transmission~~ ~~Operator~~

Requested information
Do you know of any consensus building activities ³ in connection with this SAR? If so, please provide any recommendations or findings resulting from the consensus building activity.
The 2019 FERC and NERC Staff Report: <i>The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018</i> , July 2019 was publicly noticed and shared with regulators and industry.
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)?
<p><u>In implementing the project scope, the preference is for the Standards Drafting Team to utilize and revise, to the extent possible, the current Operating and Planning Suite of mandatory Reliability Standards subject to enforcement and create a new standard only if necessary and appropriate.</u> The proposed deliverables, as well as other proposed requirements applicable to Generator Owners, Generator Operators, Balancing Authorities and Reliability Coordinators, that may result from this project should<u>must</u> be reviewed to ensure any conflicts or overlap with current requirements are mitigated. For example, IRO-010-2, and TOP-003-3, <u>and EOP-011</u> may address some of these aspects already. These standards require the Reliability Coordinator (IRO-010-2) and Balancing Authority (TOP-003-3) to maintain documented data specifications that include a list of data and information they need to support the Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. Applicable Registered Entities, which include Transmission Operators, Balancing Authorities, Generator Operators, Generator Owners, Transmission Owners, and Distribution Providers, are then required to provide the data per the data specifications. <u>Additionally, EOP-011 includes consideration of generator management and extreme weather conditions.</u></p> <p><u>The Operating and Planning suite of standards will be considered for this project.</u></p>
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.
<p>A number of recommendations contained in the following FERC and NERC reports could be utilized by the standard drafting team:</p> <p><i>2019 FERC and NERC Staff Report: The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018</i>, July 2019</p>

³ 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.

Requested information

Polar Vortex Review, September 2014

Report on Outages and Curtailments During the Southwest Cold Weather Event of February 1-5, 2011: Causes and Recommendations, August 2011

Reliability Guideline: Generating Unit Winter Weather Readiness – Current Industry Practices.

Reliability Guideline: Generating Unit Winter Weather Readiness – Current Industry Practices.

Formatted: Font: Italic

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 checked="" type="checkbox"/>	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained, and implemented.
<input checked="" type="checkbox"/>	5. Facilities for communication, monitoring, and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
<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	Yes

Market Interface Principles

access commercially non-sensitive information that is required for compliance with reliability standards.

Identified Existing or Potential Regional or Interconnection Variances

Region(s)/ Interconnection	Explanation
None	

For Use by NERC Only

SAR Status Tracking (Check off as appropriate).

- | | |
|---|--|
| <input type="checkbox"/> Draft SAR reviewed by NERC Staff | <input type="checkbox"/> Final SAR endorsed by the SC |
| <input type="checkbox"/> Draft SAR presented to SC for acceptance | <input type="checkbox"/> SAR assigned a Standards Project by NERC |
| <input type="checkbox"/> DRAFT SAR approved for posting by the SC | <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