

# NERC

NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

# Cold Weather

Project 2019-06

Cold Weather SDT  
February 2021

**RELIABILITY | RESILIENCE | SECURITY**



- **NERC Antitrust Guidelines**

- 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.

- **Notice of Open Meeting**

- Participants are reminded that this webinar is public. The access number was widely distributed. Speakers on the call should keep in mind that the listening audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

- SAR Overview
- Modifications to:
  - EOP-011-2
  - IRO-010-4
  - TOP-003-5
  - Implementation Plan
- Next Steps
- Resources

# Standard Drafting Team Members

|                   | Name                | Entity  |
|-------------------|---------------------|---|
| <b>Chair</b>      | Matthew Harward     | Southwest Power Pool, Inc.                    |
| <b>Vice Chair</b> | Matt Averett        | Southern Company                              |
| <b>Members</b>    | Alan Allgower       | ERCOT   |
|                   | Thor Angle          | Puget Sound Energy                            |
|                   | David Daniels       | American Electric Power                       |
|                   | Chris Dibble        | Dominion Energy                               |
|                   | Samuel J. Dwyer, IV | Ameren  |
|                   | Venona Greaff       | Ingleside Cogeneration LP (Occidental Energy) |
|                   | James Healy         | Seminole Electric Cooperative Inc.            |
|                   | Cameron Lawson      | Tennessee Valley Authority                    |
|                   | Jill Loewer         | Utility Services                              |
|                   | Kenneth Luebbert    | Evergy, Inc.                                  |
|                   | Don Urban           | ReliabilityFirst                              |

- *2019 FERC and NERC Staff Report: The South-Central United States Cold Weather BES Event of January 17, 2018 ([link](#))*
  - Address Recommendation 1:
    - “[A] three-pronged approach to ensure Generator Owners/Generator Operators, Reliability Coordinators and Balancing Authorities prepare for cold weather conditions: 1) development or enhancement of one or more NERC Reliability Standards...to address the following needs”:
      - GO/GOP to perform winterization activities on generating units to prepare for adverse cold weather, in order to maximize output and availability for BES reliability, and to include:
        - Freeze Protection Measures
        - Periodic adequate maintenance and inspection
        - Communications regarding transmission capacity for natural gas
        - Winter-specific and plant-specific operator awareness training

- *Recommendation 1 Continued*

- GO/GOP to ensure accuracy of their units' temperature design specs and performance
- RC/BA to be aware of specific unit limitations, beyond which they cannot be expected to perform and take limitations into operating processes to determine contingency reserves, and perform operational planning analysis

- Industry Request:

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)?

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. 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 must be reviewed to ensure any conflicts or overlap with current requirements are mitigated. For example, IRO-010-2, TOP-003-3, and EOP-011 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. Additionally, EOP-011 includes consideration of generator management and extreme weather conditions.

## 4. Applicability:

### 4.1. Functional Entities:

4.1.1 Balancing Authority

4.1.2 Reliability Coordinator

4.1.3 Transmission Operator

4.1.4 Generator Owner

### 4.2. Facilities

4.2.1 For the purpose of this standard, the term “generating unit” includes all BES generating units and BES generating plants.



**1.2.6.** Reliability impacts of:

**1.2.6.1.** cold weather conditions; and

~~1.2.5.1.~~ **1.2.6.2.** any other extreme weather conditions.

**2.2.9.** Reliability impacts of:

**2.2.9.1.** cold weather conditions; and

~~2.2.8.1.~~ **2.2.9.2.** any other extreme weather conditions.

- R7. Each Generator Owner shall develop, maintain, and implement one or more cold weather preparedness plan(s) for its generating unit(s). The cold weather preparedness plan(s) shall include the following, at a minimum: [Violation Risk Factor: High] [Time Horizon: Operations Planning and Real-Time Operations]**
- 7.1. Generating unit(s) freeze protection measures based on unique factors such as geographical location and plant configuration;**
  - 7.2. Annual maintenance and inspection of generating unit(s) freeze protection measures; and**
  - 7.3. Generating unit(s) cold weather data, to include:**
    - 7.3.1. Generating unit(s) operating limitations in cold weather; and**
    - 7.3.2. Generating unit(s):**
      - 7.3.2.1. minimum design temperature; or**
      - 7.3.2.2. minimum demonstrated historical performance during cold weather in the previous 5 years;**
  - 7.4. Awareness training on the roles and responsibilities of site personnel contained in the cold weather preparedness plan.**

**M7. Each Generator Owner shall have a documented cold weather preparedness plan in accordance with Requirement R7; and have evidence such as (a review or revision history to indicate that the plan has been maintained;) and have evidence such as operator checklists, work orders, test records, other operating and maintenance documentation, or other communication documentation to show that its cold weather preparedness plan was implemented; and have evidence such as training materials and attendance list showing successful completion of training.**

- R1.** The Reliability Coordinator shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. The data specification shall include but not be limited to:  
*(Violation Risk Factor: Low) (Time Horizon: Operations Planning)*
- 1.1.** A list of data and information needed by the Reliability Coordinator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments including non-BES data and external network data, as deemed necessary by the Reliability Coordinator.
  - 1.2.** Provisions for notification of current Protection System and ~~Special Protection System~~ Remedial Action Scheme (RAS) status or degradation that impacts System reliability.
  - 1.3.** Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, and expected BES generating unit operation limitations during local forecasted cold weather.
  - ~~1.2~~**1.4.** A periodicity for providing data.
  - ~~1.3~~**1.5.** The deadline by which the respondent is to provide the indicated data.

- R1.** Each Transmission Operator shall maintain a documented specification for the data necessary for it to perform its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments. The data specification shall include, but not be limited to: *[Violation Risk Factor: Lower]* *[Time Horizon: Operations Planning]*
- 1.1.** A list of data and information needed by the Transmission Operator to support its Operational Planning Analyses, Real-time monitoring, and Real-time Assessments including non-BES data and external network data as deemed necessary by the Transmission Operator.
  - 1.2.** Provisions for notification of current Protection System and ~~Special Protection System~~ Remedial Action Scheme (RAS) status or degradation that impacts System reliability.
  - ~~1.2~~ 1.3.** Provisions for notification of BES generating unit-specific design specification or minimum historical performance during cold weather, and expected BES generating unit operation limitations during local forecasted cold weather.
  - ~~1.3~~ 1.4.** A periodicity for providing data.
  - ~~1.4~~ 1.5.** The deadline by which the respondent is to provide the indicated data.

- EOP-011-2, IRO-010-4, and TOP-003-5
  - Implementation Timeframe of 12 months after the effective date of the applicable governmental authority's order approving the Reliability Standard.
- New Requirement R7 from EOP-011-2

### **Initial Performance of Periodic Requirements**

Responsible Entities shall develop, maintain, and implement the Operating Plan(s) required by Reliability Standard EOP-011-2 by the effective date of the Reliability Standard. For the cold weather preparedness plan(s) for generating unit(s) required under Requirement R7, the Responsible Entity shall perform annual maintenance and inspection of generating unit freeze protection measures under Requirement R7 Part 7.2 and conduct awareness training on the roles and responsibilities of personnel under Requirement R7 Part 7.4 by the effective date of the Reliability Standard.

- Initial 45-day comment and ballot period
  - January 27 – March 3, 2021
- Additional 45-day comment and ballot period
  - Late April / Early May
- Additional 45-day comment and ballot period
  - Late September/Early October
- NERC Board of Trustees Adoption
  - November 2021

- Project 2019-06 Project Page:  
<https://www.nerc.com/pa/Stand/Pages/Project%202019-06%20Cold%20Weather.aspx>
- *2019 FERC and NERC Staff Report: The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018:* <https://www.ferc.gov/legal/staff-reports/2019/07-18-19-ferc-nerc-report.pdf>





# Questions and Answers