

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Project 2021-07

Extreme Cold Weather Grid Operations, Preparedness and
Coordination

Industry Webinar
January 11, 2024

RELIABILITY | RESILIENCE | SECURITY



Administrative

- Review NERC Antitrust Compliance Guidelines and Public Announcement

Agenda

- Standard Updates
- Implementation Plan
- Posting Update
- Q&A

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.

Participants are reminded that this meeting is public. Notice of the meeting was widely distributed. Participants should keep in mind that the audience may include members of the press and representatives of various governmental authorities, in addition to the expected participation by industry stakeholders.

Name	Entity
Kenneth Luebbert	Evergy, Inc.
Matthew Harward	Healy Law Offices
Venona Greaff	Oxy
Jonathan Davidson	City Utilities of Springfield
David McRee	Duke Energy
Thor Angle	Puget Sound Energy
Chad Wiseman	Newfoundland & Labrador Hydro
Bradley Pabian	Louisville Gas & Electric and Kentucky Utilities
Collin Martin	Oncor Electric Delivery, LLC
Jill Loewer	Utility Services
David Kezell	Electric Reliability Council of Texas, Inc. (ERCOT)
Ryan Salisbury	Oklahoma Gas & Electric
David Deerman	Southern Company Services

- Received approximately 59% approval on ballot that ended in late 2023
- Industry concerns and comments primarily centered around five key issues:
 - Referencing Good Utility Practice, as defined elsewhere, may result in a standard that is not self contained
 - Good Utility Practice terminology needed to be refined for extreme cold weather
 - Stagger language in CAP introduced administrative burden without providing a corresponding reliability benefit
 - Annual review of cold weather constraints not warranted as these will not change frequently
 - Standards may be overly administrative with little reliability benefit for northern utilities

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 - Calculate ECWT – Straight forward and SDT has developed a guide to help
 - Document Generating Unit Operating Limitations
 - Document Generating Unit Minimum Temperature
 - Can use Historical Operating Data
 - Ensure adequate freeze protections measures are in place to protect Generator Cold Weather Critical Components
 - Existing equipment process/procedures may be leveraged
 - Maintain a Cold Weather Plan
 - Measure included language to ensure that existing documentation can be used for this where it meets the standard requirements
 - Perform Unit-Specific Cold Weather Training
 - Develop a CAP for any Generator Cold Weather Reliability Events that occur

FERC Directive from Paragraph 66 of Order:

- “[W]e direct NERC...to develop and submit modifications to Reliability Standard EOP-012-1 Requirements R1 and R7 to address concerns related to the ambiguity of generator-defined declarations of technical, commercial, or operational constraints that preclude a generator owner from implementing the appropriate freeze protection measures and to ensure that the constraint declarations may not be used to opt-out of compliance with the Standard or obligations set forth in a corrective action plan.
- Specifically, we direct NERC to include auditable criteria on permissible constraints and to identify the appropriate entity that would receive the generator owners’ constraint declarations under EOP-012-1 Requirements R1 and R7.”

To address industry comments and the FERC directive, the SDT created a new NERC Glossary term, Generator Cold Weather Constraint

~~**Generator Cold Weather Constraint** – Any condition that would preclude a Generator Owner, using good utility practice,¹ from implementing freeze protection measures on one or more Generator Cold Weather Critical Components.~~

Generator Cold Weather Constraint – Any condition that would preclude a Generator Owner from implementing freeze protection measures on one or more Generator Cold Weather Critical Components using the criteria below. Freeze protection measures are not intended to refer to optimum practices, methods, or technologies, but rather to be acceptable practices, methods, or technologies generally implemented by the electric industry in areas that experience similar winter climate conditions.

Continued:

Criteria used to determine a constraint include practices, methods, or technologies which, given the exercise of reasonable judgment in light of the facts known at the time the decision was made:

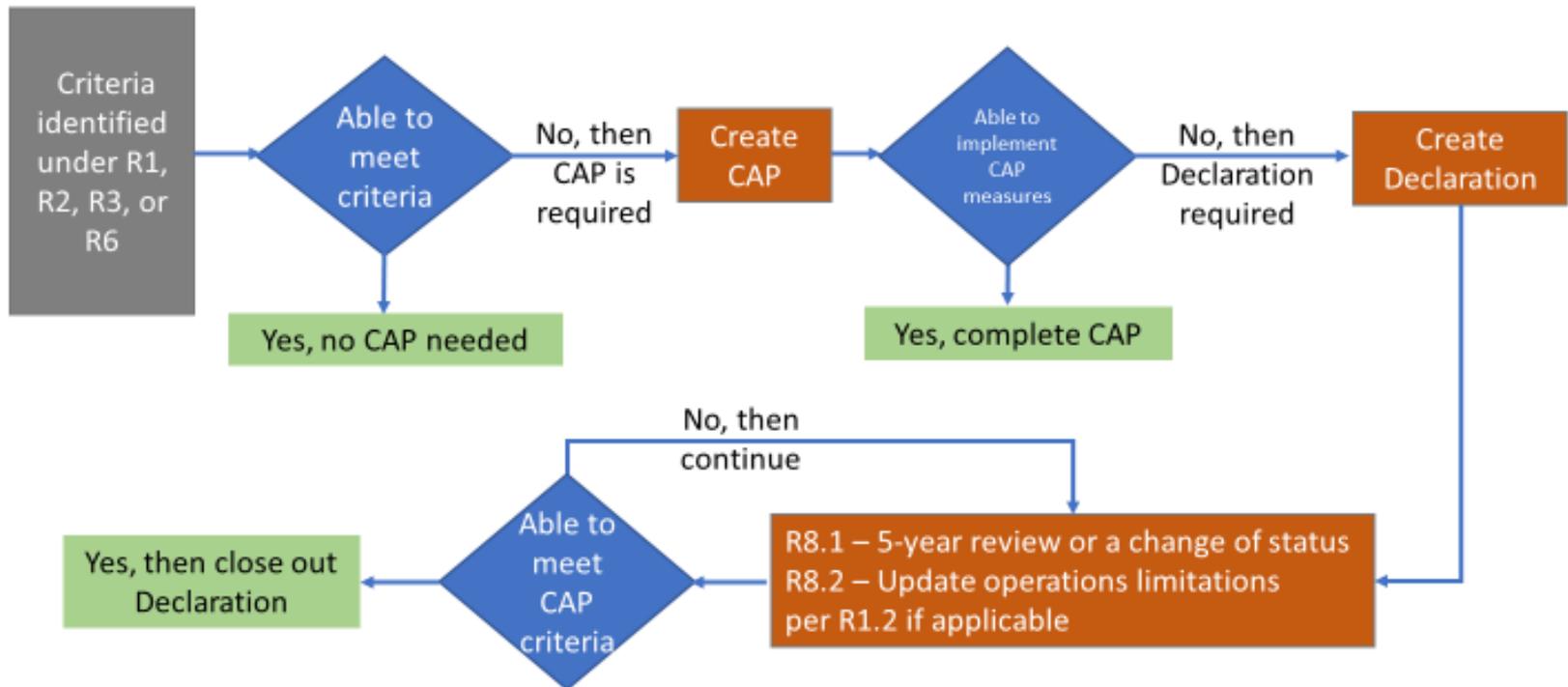
- Were not broadly implemented at generating units for comparable unit types in regions that experience similar winter climate conditions to provide reasonable assurance of efficacy;
- Could not have been expected to accomplish the desired result; or
- Could not have been implemented at a reasonable cost consistent with good business practices, reliability, or safety. A cost may be deemed “unreasonable” when implementation of selected freeze protection measure(s) are uneconomical to the extent that they would require prohibitively expensive modifications or significant expenditures on equipment with minimal remaining life.

Non-Comprehensive Examples from Technical Rationale Document:

- Warranties that would be voided by application of a freeze protection measure
- Accelerated retirement of an existing generating unit
- Cancellation of new generating unit(s)
- Reduction in summer capability
- Introduces an increased personnel or safety risk
- Introduces a risk of noncompliance with environmental regulations
- Compromised ability to provide ancillary services
- Technology not utilized by a significant portion of the electric utility industry

- R8.** Each Generator Owner that creates a Generator Cold Weather Constraint declaration shall:
- 8.1 ~~Perform an annual review and update~~ **Review** the Generator Cold Weather Constraint declaration **at least every five calendar years** or as needed **when a change of status to the generator Cold Weather Constraint occurs;** and
 - 8.2 Update the operating limitations associated with capability and availability ~~per~~ **under Requirement R1 Part 1.2** if applicable

Generator Cold Weather Constraint (GCWC) - Declaration Process (EOP-012-2)

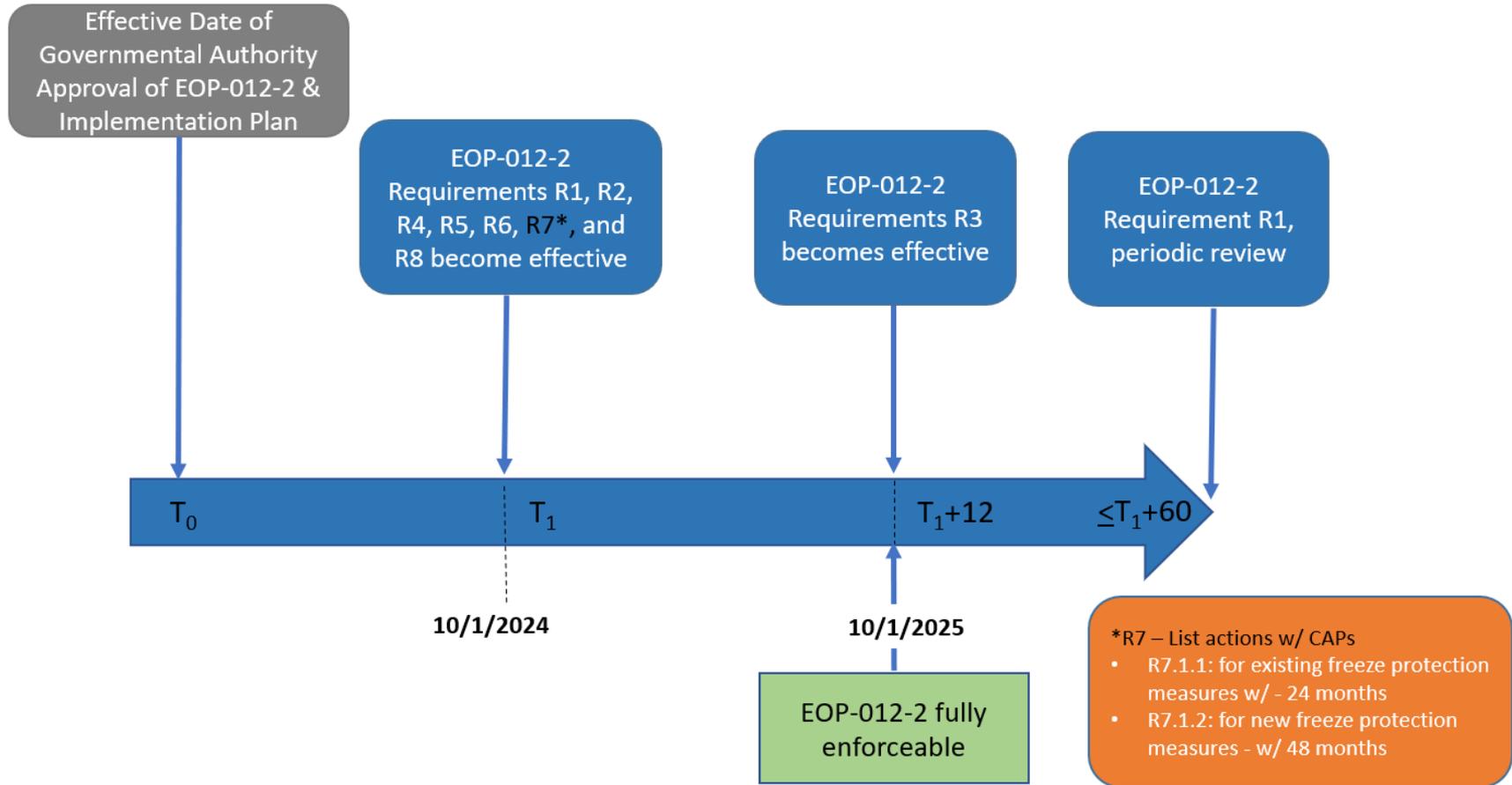


- CAPs may be required by R1, R2, R3, or R6 to provide new or corrected freeze protection measures
 - R1: Any new measures associated with 5-year review of ECWT
 - R2: New generation cold weather capability
 - R3: Existing generation cold weather capability
 - R6: Correction of freeze protection failure following Generator Cold Weather Reliability Event
- Staggered implementation removed from R7
 - Based on industry feedback, the SDT believes the logistics of implementing corrective actions at multiple units will result in implementation being naturally staggered.
 - For a CAP affecting multiple units, the timetable shall reflect the planned implementation within the limits of 7.1.1 and 7.1.2

- Maximum timeline allowed for implementation of corrective actions – no change from previous version
- Provision remains for GO to declare Generator Cold Weather Constraint precluding implementation of a freeze protection measure
- **R 7.4:** Document in a declaration, with justification, any Generator Cold Weather Constraint that precludes the Generator Owner from implementing ~~actions~~ **selected action(s)** contained within the Corrective Action Plan.

- FERC directed NERC to revise EOP-012 to require a **shorter** implementation period and **staggered** implementation for unit(s) in a generator owner's fleet
 - Such an approach will reduce reliability risks more quickly. Although we are giving NERC the discretion to determine what the effective date should be shortened to, we also emphasize that industry has been aware of and alerted to the need to prepare their generating units for cold weather since at least 2011.
 - NERC should consider the amount of time that industry has already had to implement freeze protection measures when determining the appropriate shorter implementation period.
- Based on industry feedback and the shortened implementation time, the 'stagger' language in the standard has been removed

- Effective 10/1/2024
 - R1 - ECWT and unit cold weather information
 - R2 - Applicable to generating units with a commercial operation date **on or after October 1, 2027**
 - R4 - Cold Weather Preparedness Plan (CWPP)
 - R5 - Annual training on CWPP
 - R6 - If a Generator Cold Weather Reliability Event (GCWRE) occurs, develop a CAP **w/in 150 days or July 1**, whichever is earlier
 - R7 – Timelines for the completion of Corrective Action Plans
 - R8 – Generator Cold Weather Constraint declarations
- Effective 10/1/2025
 - R3 - Applicable to generating unit(s) in commercial operation **prior to October 1, 2027**



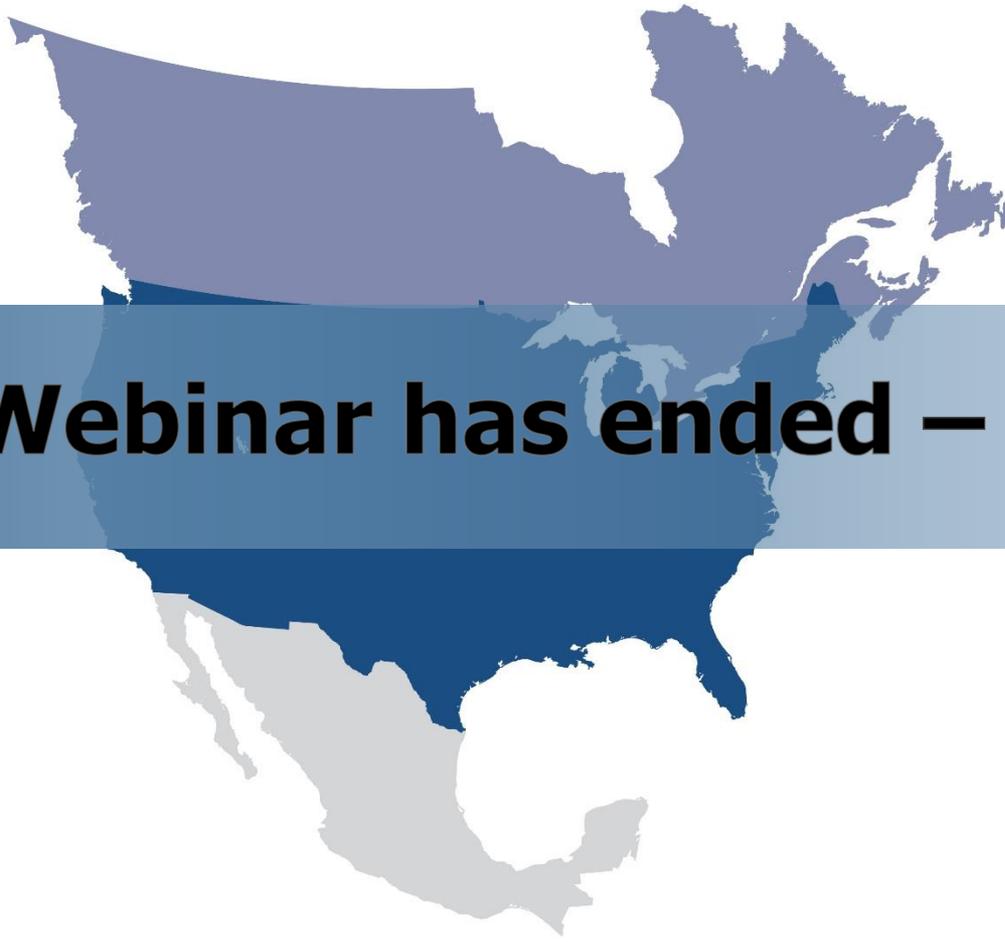
- Documents Included
 - EOP-012-2
 - Implementation Plan
 - Technical Rationale for EOP-012-2
 - Mapping Document
- Posting Date: January 11 – 22, 2024
- [Project Page](#)
- Last comment/ballot period under the usual Standards Processes Manual process
- If ballot fails, Board intends to invoke NERC's special rules to address FERC directives (ROP 321)
- [Board Announcement](#)

- EOP-012 Respond to Comments
 - Final Ballot in February 2024
 - FERC Deadline February 16, 2024
- Point of Contact
 - Alison Oswald, Manager of Standards Developer
 - Alison.oswald@nerc.net or call 404-446-9668
- Webinar Slides and Recording Posting
 - Within 48-72 hours of webinar completion
 - Will be available in the Standards, Compliance, and Enforcement Bulletin

- Informal Discussion
 - Via the Questions and Answers Objectives feature
 - Chat only goes to the host, not panelists
 - Respond to stakeholder questions
- Other
 - Some questions may require future team consideration
 - Please reference slide number, standard section, etc., if applicable
 - Team will address as many questions as possible
 - Webinar and chat comments are not a part of the official project record
 - Questions regarding compliance with existing Reliability Standards should be directed to ERO Enterprise compliance staff, not the SDT



Questions and Answers

A stylized map of North America, including the United States, Canada, and Mexico. The map is rendered in shades of blue and grey. A horizontal blue band with white text is overlaid across the middle of the map.

Webinar has ended – Thank you