

NERC

NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION

Project 2021-07

Extreme Cold Weather Grid Operations, Preparedness and
Coordination

Industry Webinar
March 14, 2023

RELIABILITY | RESILIENCE | SECURITY



Administrative

- Review NERC Antitrust Compliance Guidelines and Public Announcement

Agenda

- Project Background
- Standards 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	Southwest Power Pool, Inc.
Venona Greaff	Oxy
Derek Kassimer	ReliabilityFirst
Jonathan Davidson	City Utilities of Springfield
David McRee	Duke Energy
Thor Angle	Puget Sound Energy
Keith Smith	Orsted Onshore North American
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

- Phase 1 included the following Recommendations from the Joint Inquiry Report:
 - 1d – GO Corrective Action Plan
 - 1e – Revise GO training requirement to include annual periodicity completed
 - 1f – GO operation to specific ambient temperature and weather conditions (retrofit and new build)
 - 1j – TO, TOP and DP separation of circuits used for manual load shed

- Approved by the NERC Board in October 2022
- FERC approved standards in February 2023
 - FERC directed changes to EOP-012 and the Implementation Plan. The SDT is still reviewing the directives and will be posting a revised EOP-012 and Implementation Plan in the future.

- Phase 2 includes the following Recommendations from the Joint Inquiry Report to be included in EOP-012:
 - 1a – GO identification of cold-weather-critical components and systems
 - 1b – GO identification and implementation of freeze protection measures on each of the elements identified per 1a
 - 1c – GO requirement to account for the effects of precipitation and wind

- Phase 2 Initial Ballot currently posted includes the following Recommendations from the Joint Inquiry Report:
 - 1g – Revisions to provide greater specificity of the role each GO, GOP, and BA plays in determining generator capacity.
 - 1h – Language in BA operating plans that prohibits critical natural gas infrastructure loads from participating in demand response programs.
 - 1i – Specific requirements applicable to BAs, TOPs, PCs, and TPs around manual and automatic load shedding that protect critical natural gas infrastructure from load shedding.
- Due to NERC Board by September 30, 2023

- To provide greater specificity about the relative roles of the Generator Owner, Generator Operator, and Balancing Authority in determining the generating unit capacity that can be relied upon during “local forecasted cold weather” in TOP-003-5:
 - Based on its understanding of the “full reliability risks related to the contracts and other arrangements [Generator Owners/Generator Operators] have made to obtain natural gas commodity and transportation for generating units,”²⁸⁵ each Generator Owner/Generator Operator should be required to provide the Balancing Authority with data on the total percentage of the generating unit’s capacity that the Generator Owner/Generator Operator reasonably believes the Balancing Authority can rely upon during the “local forecasted cold weather.”

- Each Balancing Authority should be required to use the data provided by the Generator Owner/Generator Operator, combined with its evaluation, based on experience, to calculate the percentage of total generating capacity that it can rely upon during the “local forecasted cold weather,” and share its evaluation with the RC.
- Each Balancing Authority should be required to use its calculation of the percentage of total generating capacity that it can rely upon to “prepare its analysis functions and Real-time monitoring,” and to “manage generating resources in its Balancing Authority Area to address . . . fuel supply and inventory concerns” as part of its Capacity and Energy Emergency Operating Plans.

- **Balancing Authority Operating Process (Recommendation 1g)**
 - BAs required to have an extreme cold weather Operating Process, as part of its Operating Plan developed pursuant to TOP-002
 - Definition per NERC Glossary of Terms: A document that identifies general steps for achieving a generic operating goal. An Operating Process includes steps with options that may be selected depending upon Real-time conditions. A guideline for controlling high voltage is an example of an Operating Process
 - Criteria for extreme cold weather Operating Process
 - Methodology for identifying an extreme cold weather period expected to affect Balancing Authority Area
 - Methodology that determines appropriate reserve margin during extreme cold weather period
 - Methodology to determine a five day hourly forecast during the extreme cold weather period

- To require Balancing Authorities' operating plans (for contingency reserves and to mitigate capacity and energy emergencies) to prohibit use for demand response of critical natural gas infrastructure loads

- To protect critical natural gas infrastructure loads from manual and automatic load shedding (to avoid adversely affecting Bulk Electric System reliability):
 - To require Balancing Authorities' and Transmission Operators' provisions for operator-controlled manual load shedding to include processes for identifying and protecting critical natural gas infrastructure loads in their respective areas;
 - To require Balancing Authorities', Transmission Operators', Planning Coordinators', and Transmission Planners' respective provisions and programs for manual and automatic (e.g., underfrequency load shedding, undervoltage load shedding) load shedding to protect identified critical natural gas infrastructure loads from manual and automatic load shedding by manual and automatic load shed entities³²⁶ within their footprints;

- To require manual and automatic load shed entities to distribute criteria to natural gas infrastructure entities that they serve and request the natural gas infrastructure entities to identify their critical natural gas infrastructure loads; and
- To require manual and automatic load shed entities to incorporate the identified critical natural gas infrastructure loads into their plans and procedures for protection against manual and automatic load shedding.

- Proposed changes address identification and protection of critical natural gas infrastructure load (Recommendations 1h and 1i)
 - Excluded from Manual Load Shed
 - Excluded from Automatic Load Shed
 - Excluded from Demand Response programs
- Added Functional Entities to Applicability
 - Distribution Provider
 - UFLS-only Distribution Provider
 - Transmission Owner

- **New requirements**
 - TOP in its Emergency Operations Plan to include:
 - Provisions for identification and prioritization of designated critical natural gas infrastructure loads
 - Provisions for identification of Distribution Providers, UFLS-only Distribution Providers, and Transmission Owners required to mitigate operating Emergencies
 - BA in its Emergency Operations Plan to include:
 - Provisions for excluding critical natural gas infrastructure loads as interruptible load, curtailable load, and from demand response
 - During periods when it would adversely impact the reliable operation of the BES

- **New requirements**

- Distribution Provider, UFLS-only Distribution Provider, and Transmission Owner to create Operating Plans that:
 - Provisions for identification and prioritization of designated critical natural gas infrastructure loads
 - Minimizes overlap of circuits designated for manual and automatic load shedding from circuits for designated critical load, including critical natural gas infrastructure loads
 - Minimize overlap of circuits designated for manual and automatic load shedding from circuits utilized for UFLS and UVLS
 - Limit utilization of UFLS or UVLS circuits from manual load shed to situations where warranted by system conditions

- Recommendations
 - EOP-011-4 effective date 18 months
 - TOP-002-5 effective date 12 month

- Documents Included
 - TOP-002-5
 - EOP-011-4
 - Implementation Plan
 - Technical Rationale for TOP-002-5 and EOP-011-4
- Posting Date: February 28 – April 13, 2023
- Ballot Pool: February 28 – March 29, 2023
- [Project Page](#)

- EOP-012 FERC Directives
 - Team Meetings in March and April
 - Targeted Initial Ballot by May 2023
- TOP-002 and EOP-011 Respond to Comments
 - Team Meetings in April and May 2023
 - Second Posting in Summer 2023
 - NERC Board Deadline September 30, 2023
- Point of Contact
 - Alison Oswald, Senior 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



Webinar has ended – Thank You