UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

North American Electric Reliability Corporation	**)**	**Docket No. RD25-7-000**
	)	

REPLY COMMENTS OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION TO THE COMMENTS OF THE UNION OF CONCERNED SCIENTISTS

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The North American Electric Reliability Corporation ("NERC") submits the following reply to the comments of the Union of Concerned Scientists (or "UCS"), filed in this proceeding on May 12, 2025.[1] UCS raises concerns regarding proposed generator cold weather preparedness Reliability Standard EOP-012-3, specifically several of the circumstances that may qualify as Case-by-Case Determinations of Generator Cold Weather Constraints under Attachment 1 to the proposed standard. UCS requests that the Commission direct NERC to make certain changes to the standard, including removing or revising several of the situations on the case-by-case list.

Although UCS does not appear to have participated in the underlying standard development proceeding for proposed Reliability Standard EOP-012-3,[2] NERC appreciates the opportunity to clarify certain matters raised in the UCS comments and reiterate that proposed Reliability Standard EOP-012-3 would meet its reliability goal of advancing generator cold

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[1] Comments of the Union of Concerned Scientists, Docket No. RD25-7-000 (May 12, 2025) [hereinafter UCS Comments]. The Union of Concerned Scientists states that it is a "national nonprofit organization dedicated to advancing responsible public policies in areas where science and technology play a critical role." *Id.* at 1.

NERC requests leave to submit this reply and waiver of Commission rules to the extent applicable, pursuant to Rule 213(a) of the Commission's Rules of Practice and Procedure. 18 C.F.R. § 385.213(a).

[2] *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, 114 FERC ¶ 61,104, at P 334 [hereinafter Order No. 672], *order on reh'g*, Order No. 672-A, 114 FERC ¶ 61,328 (2006) (stating "[W]e caution that we will not be sympathetic to arguments by interested parties that choose, for whatever reason, not to participate in the ERO's Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by the Commission.")

weather preparedness effectively and efficiently, satisfy the criteria for Federal Energy Regulatory Commission ("FERC" or "Commission") approval as set forth in Order No. 672,[3] and address the Commission's directives as set forth in its June 27, 2024 order approving Reliability Standard EOP-012-2.[4] NERC respectfully requests that the Commission accept this reply, as it enhances the record by clarifying and providing context to the issues raised by UCS and explains why the Commission should not direct the changes sought by UCS in its comments.

I. Proposed Reliability Standard EOP-012-3 Should be Approved, as it Provides an Enhanced Framework for Generator Cold Weather Constraints that Addresses the Commission's Concerns from the June 2024 Order.

For the reasons explained more fully in NERC's Petition, proposed Reliability Standard EOP-012-3 provides an improved framework for the identification, validation, and periodic review of Generator Cold Weather Constraints. Consistent with the directives of the June 2024 Order, this framework provides clear, detailed, and objective criteria so responsible entities understand the performance that is expected of them. Of relevance to this filing, NERC enhanced the framework for the identification of constraints entailing economic considerations, taking into consideration the Commission's guidance and examples from the June 2024 Order.

In its comments, UCS raises concerns with several of the circumstances that may qualify as Case-by-Case Determinations of Generator Cold Weather Constraints under Attachment 1 to the proposed standard. UCS expresses concern with proposed case-by-case item 5 (including items 5a through 5d), items 1 and 2 as it applies to new generating units, and item 6. NERC responds to these concerns as follows.

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[3] Order No. 672 at PP 262, 321-37.

[4] *N. Am. Elec. Reliability Corp.,* 187 FERC ¶ 61,204 (2024) [hereinafter June 2024 Order].

A. Proposed Case-by-Case Generator Cold Weather Constraint item 5a is Consistent with the Commission's Guidance in the June 2024 Order.

1. *UCS Comments*

In its comments, UCS raises concerns with proposed case-by-case item 5a, relating to a situation where implementing freeze protection measures would lead to the accelerated premature retirement of a generating unit.[5] UCS asserts that item 5a would require the Compliance Enforcement Authority to make an "unworkable number of subjective judgments," considering among other things private economic decisions and generator intent, when reviewing constraints. UCS states that "[a] Constraint declaration with a signed attestation from a company officer is no more auditable than a Constraint declaration without one."[6] UCS further suggests item 5a "attempts to create a mechanism that is ultimately redundant" because "reliability must run" or similar constructs in place in a number of the organized markets can be used to retain generators if temporarily needed for system reliability.[7] UCS states that "FERC should direct removal of item 5a from the proposed Standard."[8]

1. *NERC Reply*

NERC responds that the inclusion of proposed case-by-case item 5a is consistent with the June 2024 Order and reflects deliberations – across three successive drafting efforts – to capture

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[5] EOP-012-3 Attachment 1 Case-by-case Determinations of Generator Cold Weather Constraints Item 5a is as follows:

> 5. A determination, through an analysis, that the implementation of a specific freeze protection measure or measures would adversely affect the reliability of the Bulk Power System to an extent that outweighs the reliability benefit of applying the freeze protection measure(s). For example:
>
> a. The implementation of freeze protection measures, while feasible, would result in the accelerated premature retirement of an existing generating unit with no acceptable replacement available within the accelerated timeframe (must be accompanied by an attestation signed by an officer of the company)…

[6] UCS Comments at 6.

[7] *Id.* at 6.

[8] *Id.* at 7.

the circumstances where a winterization requirement would be excessively burdensome for a generator, and that burden could result in unintended consequences and potential diminishment of reliability by leading to premature retirements of generating units. Requesting the removal of proposed case-by-case item 5a from the EOP-012 standard would be inconsistent with prior EOP-012 proceedings which recognized the appropriateness of such an inclusion.

In general, Attachment 1 Case-by-Case Determinations of Generator Cold Weather Constraints item 5 discusses situations where the reliability benefit to be gained from implementing freeze protection measures may be outweighed by the harm to the reliability of the Bulk-Power System from a requirement to implement them. This category includes circumstances where the cost to retrofit may be so unduly burdensome as to threaten the continued viability of a new or planned unit, resulting in its premature retirement or cancelation (and therefore resulting in less generation to support Bulk Power System reliability). Item 5 also includes circumstances where implementing freeze protection measures may result in diminished performance of the unit in other circumstances, such as during Peak Demand conditions. The inclusion of this category in proposed Reliability Standard EOP-012-3 is consistent with the intent of earlier EOP-012 drafting teams, which were concerned about the unintended reliability impacts that could result from an overly stringent winterization requirement that did not account for these circumstances.[9]

In the June 2024 Order, the Commission stated that it "acknowledge[d] that there may be certain instances in which the cost of retrofitting may be unduly burdensome,"[10] and it directed NERC to provide a "limited set of clearly defined circumstances" for Commission review. In the June 2024 Order, the Commission considered various arguments and comments about how the

[9] *See* Petition at IV.B (discussing the history of the EOP-012 standard, including the concept of constraints that may preclude a Generator Owner from implementing freeze protection measures).

[10] June 2024 Order at P 46.

EOP-012-2 standard proposed to address cost reasonableness and related economic considerations. The Commission stated, "NERC, as the ERO is not well positioned to assess the reasonableness of a registered entity's economic choices,"[11] but suggested "an attestation from a generator owner or generator operator that… the generating unit is scheduled to retire within the next two years" may be an acceptable approach to an economic type constraint.[12] Proposed case-by-case item 5a is consistent with this guidance.

Proposed case-by-case item 5a focuses on the impact to reliability that may be caused by a Generator Owner choosing to prematurely retire its unit rather than incur unduly burdensome implementation costs. Consistent with the Commission's guidance, an attestation is required for support. NERC recognizes that the specific facts and circumstances may vary by entity, which supports its inclusion on the case-by-case constraints list, rather than the Known Generator Cold Weather Constraints list. Whether a specific case-by-case constraint would apply to an entity's facts and circumstances would be up to the entity to demonstrate. However, that facts and circumstances may vary by entity does not render proposed case-by-case item 5a un-auditable or inherently subjective. The Generator Cold Weather CAP Extension and Constraint Process document describes how ERO Enterprise staff will review constraints and NERC will perform oversight, and additional guidance will be provided to entities as appropriate.

With respect to UCS's comment that a market mechanism may render proposed case-by-case item 5a redundant, NERC disagrees. Reliability Standards must be clear "regarding what is required and who is required to comply."[13] Further, NERC Reliability Standards are designed to apply across North America, and must take into account regional variations in market design or

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11 *Id.* at P 44.

12 *Id.* at P 46.

13 *See* Order No. 672 at P 325.

ownership structures to the extent possible.[14] Proposed case-by-case item 5a is intended to capture one of the circumstances that, if shown to be present and approved by the Compliance Enforcement Authority, may exempt the generator from having to implement certain freeze protection measures under the proposed standard. The presence of "reliability must run" or similar constructs in specific markets would not be a sufficient substitute for a clear statement in the proposed standard itself as to what is required under that standard and when.

B. Proposed Case-by-Case Generator Cold Weather Constraint item 5b is Consistent with the Commission's Guidance in the June 2024 Order.

1. *UCS Comments*

In its comments, UCS asserts that proposed case-by-case Generator Cold Weather Constraint item 5b, relating to a situation where implementing freeze protection measures would cause the Generator Owner to cancel plans to finish the development of a new generating unit,[15] be removed on the basis that it is "subjective" and "does not account for the ample time G[enerator] O[wner]s have had to implement freeze protection measures after repeated, serious threats to bulk power system reliability."[16]

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[14] *See* Order No. 672 at P 331 (stating "A proposed Reliability Standard should be designed to apply throughout the interconnected North American Bulk-Power System, to the maximum extent this is achievable with a single Reliability Standard. The proposed Reliability Standard should not be based on a single geographic or regional model but should take into account geographic variations in grid characteristics, terrain, weather, and other such factors; it should also take into account regional variations in the organizational and corporate structures of transmission owners and operators, variations in generation fuel type and ownership patterns, and regional variations in market design if these affect the proposed Reliability Standard.")

[15] EOP-012-3 Attachment 1 Case-by-case Determinations of Generator Cold Weather Constraints Item 5b is as follows:

> 5. A determination, through an analysis, that the implementation of a specific freeze protection measure or measures would adversely affect the reliability of the Bulk Power System to an extent that outweighs the reliability benefit of applying the freeze protection measure(s). For example:…
>
> b. The implementation of freeze protection measures would cause the Generator Owner to cancel plans to finish the development of a new generating unit (must be accompanied by an attestation signed by an officer of the company)…

[16] UCS Comments at 8.

2. NERC Reply

NERC agrees that Generator Owners have been aware of the need to take prompt action to address cold weather reliability risks and has, over successive versions of the EOP-012 standard, shortened the timeline for implementing freeze protection measures for both new and existing generating units. However, removing proposed case-by-case item 5b would be inconsistent with prior EOP-012 proceedings which recognized the appropriateness of Generator Cold Weather Constraints for new generation as a general matter, as well as the June 2024 Order which recognized the appropriateness of including as a constraint the cancelation of a planned generating unit specifically.

In the June 2024 Order, the Commission stated that it "acknowledge[d] that there may be certain instances in which the cost of retrofitting may be unduly burdensome,"[17] and it directed NERC to provide a "limited set of clearly defined circumstances" for Commission review. The Commission suggested that "an attestation from a generator owner or generator operator that… they would cancel a newly scheduled generating unit that has not yet achieved commercial operation if required to comply with the freeze protection requirements of a Standard" may be an acceptable approach to such a constraint.[18] The inclusion of proposed case-by-case item 5b is consistent with this guidance. No new facts or information have been offered that may suggest such an approach would no longer be just and reasonable.

17 June 2024 Order at P 46.

18 *Id.* at P 46.

C. The Appropriateness of Generator Cold Weather Constraints for New Generating Units in the EOP-012 Standard is a Long-Settled Matter.

1. *UCS Comments*

In its comments, UCS asserts that two of the proposed case-by-case Generator Cold Weather Constraint items should either be confirmed to not apply to new generation or limited to generators that entered commercial operations prior to October 1, 2027.[19] These are proposed case-by-case item 1, relating to a situation where implementing freeze protection measures would void an equipment warranty; and proposed case-by-case item 2, relating to a situation where implementation of a specific freeze protection measure would exceed a manufacturer's design limitation and the exceedance is expected to functionally impair or degrade the effective operation of the impacted component or system.

UCS states that the inclusion of these items, along with proposed case-by-case item 5b, "risks the creation of loopholes for new generators to forego freeze protections even when they are technically feasible and would increase the reliability of the bulk power system."[20]

2. NERC Reply

NERC shares the UCS's belief that NERC should encourage the development of generator equipment and designs that can better withstand extreme temperature conditions. Accordingly, NERC has proposed several revisions in proposed Reliability Standard EOP-012-3 that are intended to improve the overall state of winterization across the generation fleet. This includes modifying the definition of Generator Cold Weather Constraint to remove references to practices "generally implemented by the electric industry", developing the proposed list of Generator Cold Weather Constraints (including a sunset date for the known Generator Cold Weather Constraint

19 *See* UCS Comments at 7-9.

20 *See id.* at 7.

relating to wind turbine tower steel limitations), as well as requiring more frequent reviews of declared Generator Cold Weather Constraints to ensure that new technologies have not been developed which might obviate the need for the constraint. These changes are discussed more fully in NERC's Petition.

NERC, however, disagrees that proposed case-by-case items 1 or 2 should be limited to new generating units only. In developing its constraint list, NERC considered stakeholder input provided throughout the standard development process, including feedback regarding the typical length of technological development cycles, and it has built upon the general discussions of technological or commercial limitations that may reasonably foreclose the application of specific freeze protection measures from three successive rounds of EOP-012 standards development. The inclusion of items 1 and 2 on the case-by-case list reflects a balancing of the relevant considerations and represents a reasonable and objective approach for identifying constraints for all generating units, existing or planned. As discussed in the following section, proposed Reliability Standard EOP-012-3 contains a mechanism for driving continuous improvement in winterization as new technologies are developed that may eliminate the need for such constraints.

NERC also notes that, although the terminology used to refer to such constraints has differed across versions, the option to declare a constraint for a new generating unit has been present in each version of the EOP-012 standard approved by the Commission.[21] To direct NERC to foreclose the possibility that new generating units may declare such constraints, or to differentiate among the constraints that could apply, would result in a significant change in the underlying framework of the EOP-012 standard and would present implementation concerns given

[21] *See* Petition Section VI. Effective Date of the Proposed Reliability Standard (discussing the history of EOP-012 requirements for new generation).

the October 1, 2027 date for more stringent freeze protection requirements for new generating units. NERC does not believe such a significant change is supported by the current record.

D. Proposed EOP-012-3 Contains a Built-in Mechanism for Ensuring Constraint Declarations Remain up to Date.

1. *UCS Comments*

In its comments, UCS suggests that the Commission require Generator Owners declaring Generator Cold Weather Constraints for units already scheduled for retirement within three years (Attachment 1 Case-by-Case Determinations of Generator Cold Weather Constraints item 6) to submit annual progress reports to demonstrate that the unit is still in fact on track to retire on the original timeline.[22] UCS cites recent delays in planned retirements of generators due to forecasted high load growth as supporting its proposal.[23]

2. NERC Reply

NERC recognizes that some Generator Owners have been rethinking their unit retirement plans given the forecasted growth in load over the next several years. While UCS suggests a novel approach, to require annual retirement progress reports for such units, proposed Reliability Standard EOP-012-3 already contains a mechanism in Requirement R9 for reviewing declared Generator Cold Weather Constraints periodically to determine if they continue to be valid. Proposed Requirement R9 would require all Generator Owners to review their validated Generator Cold Weather Constraints at least once every 36 calendar months for continued validity. If the constraint is no longer valid, such as due to a change in the facts or circumstances, the Generator Owner must either submit another constraint for validation or develop and implement a Corrective Action Plan to provide the necessary freeze protection measures.

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22 UCS Comments at 10.

23 *Id.* at 10-11.

As discussed further in NERC's Petition, the proposed timeline for this periodic review is much shorter than the five calendar years in Reliability Standard EOP-012-2 and reflects a balancing of stakeholder concerns about administrative burden and the expected pace of change raised during the underlying standard development process. NERC believes that a uniform 36-calendar month periodic review timeline for all constraints would provide a reasonable and workable approach for identifying units whose facts and circumstances have changed such that a constraint would no longer apply and the implementation of freeze protection measures would be required.

E. Proposed EOP-012-3 Mitigates Potential Conflict of Interest Concerns by Requiring ERO Enterprise Review of Case-by-case Determinations of Generator Cold Weather Constraints.

1. UCS Comments

In its comments, UCS suggests that proposed case-by-case items 5c and 5d introduce the potential for conflicts of interest in declaring certain reliability-related constraints. Items 5c and 5d of the proposed Attachment 1 Case-by-case Determinations of Generator Cold Weather Constraints would allow a Generator Owner to declare a constraint where implementing freeze protection measures would reduce the capability or capacity of the unit in other circumstances by more than three percent or another value supported by the appropriate functional entity. UCS states that, in some cases, the "appropriate functional entity" may be affiliated with the Generator Owner, thus presenting a potential conflict of interest.[24]

As explained in its Petition, NERC considered that there should be flexibility in the selected three percent value when a different value is supported by the appropriate functional entity as more

[24] UCS Comments at 11-13.

supportive of the reliable operation of the grid.[25] While NERC has considered a number of hypothetical situations throughout the development of the EOP-012 standard, it is not clear to NERC how corporate affiliation alone would introduce an actual conflict of interest, where a different value is *supported* by the appropriate functional entity as more supportive of the reliable operation of the grid.

However, proposed Reliability Standard EOP-012-3 provides protections against attempted gamesmanship of the constraint process and inconsistency in the review of constraints. As with all case-by-case constraints, the Generator Owner is required to demonstrate how the constraint applies to its particular facts and circumstances, and the constraint must be approved by the Compliance Enforcement Authority before the implementation of any otherwise-required freeze protection measures would be excused. To the extent an actual conflict of interest concern materializes in the implementation data, NERC would take prompt action to initiate its standard development process to ensure the standard remains effective in addressing generator cold weather reliability risks.

[25] *See* Petition at 58-59.

II. Conclusion

For the reasons stated in NERC's Petition and this filing, NERC respectfully requests that the Commission approve proposed Reliability Standard EOP-012-3 as just, reasonable, not unduly discriminatory, and in the public interest, as proposed by NERC.

Respectfully submitted,

/s/ Lauren A. Perotti

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Counsel for the North American Electric Reliability Corporation

Date: May 28, 2025

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in the above-referenced proceeding.

Dated at Washington, D.C. this 28th day of May 2025.

/s/ Lauren A. Perotti

Lauren A. Perotti

Counsel for North American Electric Reliability Corporation