

186 FERC ¶ 61,115
UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

Before Commissioners: Willie L. Phillips, Jr., Chairman;
Allison Clements and Mark C. Christie.

North American Electric Reliability Corporation

Docket No. RD24-1-000

ORDER APPROVING EXTREME COLD WEATHER RELIABILITY STANDARDS
EOP-011-4 AND TOP-002-5

(Issued February 15, 2024)

1. On October 30, 2023, the North American Electric Reliability Corporation (NERC), the Commission-certified Electric Reliability Organization (ERO), submitted a petition seeking approval of proposed Reliability Standards EOP-011-4 (Emergency Operations) and TOP-002-5 (Operations Planning). As discussed in this order, we approve proposed Reliability Standards EOP-011-4 and TOP-002-5 and their associated violation risk factors and violation severity levels.

2. It is essential to the reliable operation of the Bulk-Power System to protect critical natural gas infrastructure loads that serve gas-fired generation.¹ As the November 2021 Report found, natural gas fuel issues were the second largest cause of generation outages during Winter Storm Uri.² Proposed Reliability Standards EOP-011-4 and TOP-002-5 address the concerns raised by the November 2021 Report.³ Accordingly, we approve proposed Reliability Standards EOP-011-4 and TOP-002-5 as just, reasonable, not unduly discriminatory or preferential, and in the public interest.

¹ See FERC, NERC, and Regional Entity Staff, *The February 2021 Cold Weather Outages in Texas and the South Central United States*, 19 (Nov. 16, 2021) (November 2021 Report), <https://www.ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and>; see also *id.* at 19 n.30 (“‘Natural gas infrastructure’ refers to natural gas production, gathering, processing, intrastate and interstate pipelines, storage and other infrastructure used to move natural gas from wellhead to burner tip.”).

² *Id.* at 18.

³ See *id.* at 6, 24, 41-43.

I. Background

A. Section 215 and Mandatory Reliability Standards

3. Section 215 of the FPA provides that the Commission may certify an ERO, the purpose of which is to develop mandatory and enforceable Reliability Standards, subject to Commission review and approval.¹ Reliability Standards may be enforced by the ERO, subject to Commission oversight, or by the Commission independently.² Pursuant to section 215 of the FPA, the Commission established a process to select and certify an ERO,³ and subsequently certified NERC.⁴

B. The February 2021 Cold Weather Reliability Event

4. On February 16, 2021, the Commission, NERC, and Regional Entity staff initiated a joint inquiry into the circumstances surrounding a February 2021 cold weather reliability event that affected Texas and the South Central United States that culminated in a report identifying, among other things, recommendations for Reliability Standard improvements.⁵ The November 2021 Report found that the February 2021 cold weather reliability event was the largest controlled firm load shed event in U.S. history; over 4.5 million people lost power and at least 210 people lost their lives.⁶ The November 2021 Report provided an assessment of the event as well as recommendations including, *inter alia*, Reliability Standard enhancements to improve extreme cold weather operations, preparedness, and coordination.⁷

5. After the February 2021 cold weather reliability event and before the November 2021 Report was issued, NERC filed a petition for approval of cold weather Reliability Standards

¹ 16 U.S.C. § 824o(c).

² *Id.* § 824o(e).

³ *Rules Concerning Certification of the Elec. Reliability Org.; and Procs for the Establishment, Approval, & Enforcement of Elec. Reliability Standards*, Order No. 672, 114 FERC ¶ 61,104, *order on reh'g*, Order No. 672-A, 114 FERC ¶ 61,328 (2006).

⁴ *N. Am. Elec. Reliability Corp.*, 116 FERC ¶ 61,062, *order on reh'g and compliance*, 117 FERC ¶ 61,126 (2006), *aff'd sub nom. Alcoa, Inc. v. FERC*, 564 F.3d 1342 (D.C. Cir. 2009).

⁵ *See* November 2021 Report at 9.

⁶ *Id.*

⁷ *Id.* at 184-212 (Key recommendations 1a through 1j).

addressing recommendations from a 2018 cold weather event report.⁸ In August 2021, the Commission approved NERC's modifications to Reliability Standards EOP-011-2 (Emergency Preparedness and Operations), IRO-010-4 (Reliability Coordinator Data Specification and Collection), and TOP-003-5 (Operational Reliability Data).⁹ Reliability Standards IRO-010-4 and TOP-003-5 require that reliability coordinators, transmission operators, and balancing authorities develop, maintain, and share generator cold weather data.¹⁰ Reliability Standard EOP-011-2 requires generator owners to have generating unit cold weather preparedness plans and generator owners and generator operators to provide training for implementing the cold weather preparedness plans.¹¹

6. On October 28, 2022, NERC filed a petition seeking approval, on an expedited basis, of Reliability Standards EOP-011-3 (Emergency Operations) and EOP-012-1 (Extreme Cold Weather Preparedness and Operations), the Reliability Standards' associated violation risk factors and violation severity levels, three newly-defined terms (Extreme Cold Weather Temperature, Generator Cold Weather Critical Component, and Generator Cold Weather Reliability Event), NERC's proposed implementation plan, and the retirement of Reliability Standard EOP-011-2.¹² On February 16, 2023, the Commission approved Reliability Standards EOP-011-3 and EOP-012-1, and also directed NERC to develop and submit modifications to Reliability Standard EOP-012-1 and to submit a plan on how NERC will collect and assess data surrounding the implementation of Reliability Standard EOP-012-1.¹³

C. NERC's Petition and Proposed Reliability Standards EOP-011-4 and TOP-002-5

7. On October 30, 2023, NERC filed a petition seeking approval on an expedited basis of proposed Reliability Standards EOP-011-4 and TOP-002-5,¹⁴ the Reliability

⁸ FERC and NERC Staff, *The South Central United States Cold Weather Bulk Electric System Event of January 17, 2018*, 89 (July 2019), https://www.ferc.gov/sites/default/files/2020-05/07-18-19-ferc-nerc-report_0.pdf.

⁹ See generally *N. Am. Elec. Reliability Corp.*, 176 FERC ¶ 61,119 (2021) (noting that the Reliability Standards become enforceable on April 1, 2023).

¹⁰ *Id.*

¹¹ *Id.*

¹² NERC, Petition, Docket No. RD23-1-000, at 1-2 (filed Oct. 28, 2022).

¹³ See *N. Am. Elec. Reliability Corp.*, 182 FERC ¶ 61,094, at PP 3-11 (February 2023 Order), *order on reh'g*, 183 FERC ¶ 61,222 (2023).

¹⁴ The proposed Reliability Standards are not attached to this order. The proposed

Standards' associated violation risk factors and violation severity levels, NERC's proposed implementation plan, and the retirement of currently approved EOP-011-3 and TOP-002-4.¹⁵ NERC explains that proposed Reliability Standards EOP-011-4 and TOP-002-5 build on the 2021 and 2023-approved cold weather Reliability Standards, further reducing the risks posed by extreme cold weather to the reliability of the Bulk-Power System.¹⁶ NERC maintains that proposed Reliability Standards EOP-011-4 and TOP-002-5 are consistent with key recommendations from the November 2021 Report.¹⁷

8. NERC explains that it adopted a two-phase standard development project to develop, draft, and revise the extreme cold weather Reliability Standards in accordance with the November 2021 Report due to the extensive scope and demonstrated urgency of new and improved cold weather Reliability Standards. NERC states that its October 30, 2023, petition represents the portions of its phase two standard development project pertaining to Key Recommendations 1g, 1h, and 1i.¹⁸

9. NERC states that proposed Reliability Standard EOP-011-4 advances reliability by requiring transmission operators to consider the impacts of load shedding during emergency conditions on the natural gas infrastructure that fuels a significant portion of bulk electric system generation.¹⁹ NERC explains that the purpose of proposed Reliability Standard EOP-011-4 is unchanged from EOP-011-3, and is to ensure that each transmission operator and balancing authority implements plans to mitigate operating emergencies and that such plans are coordinated within the reliability coordinator area. According to NERC, proposed Reliability Standard EOP-011-4 addresses Key Recommendation 1h and 1i from the November 2021 Report.²⁰

Reliability Standards are available on the Commission's eLibrary document retrieval system in Docket No. RD24-1-000 and on the NERC website, <https://www.nerc.com>.

¹⁵ NERC Petition at 1-2, 48, 54 (stating that, in the alternative, should Reliability Standard EOP-011-2 be in effect at the time of proposed Reliability Standard EOP-011-4's approval, then NERC seeks retirement of EOP-011-2).

¹⁶ *Id.* at 1-2.

¹⁷ *Id.* at 6; *see also* November 2021 Report at 190-91, 208-09 (Key Recommendations 1g, 1h, and 1i).

¹⁸ NERC Petition at 21-22, 51.

¹⁹ *Id.* at 26-27.

²⁰ *See id.* at 27 (citing the November 2021 Report at 208-09).

10. NERC proposes to modify the approved, but not yet effective, Reliability Standard EOP-011-3 in multiple ways.²¹ First, NERC proposes to add distribution providers, Underfrequency Load Shed (UFLS)-only distribution providers, and transmission owners to the list of applicable entities that must comply with the Reliability Standard EOP-011-4.²² Second, under proposed Reliability Standard EOP-011-4, each transmission operator will be required to include operating plan provisions that identify and prioritize designated critical natural gas infrastructure loads that are “essential to the reliability of the bulk electric system.”²³ Third, balancing authorities must develop, maintain, and implement one or more reliability coordinator-reviewed operating plans with provisions for excluding critical natural gas infrastructure loads that are essential to the reliability of the bulk electric system as interruptible load, curtailable load, and demand response during extreme cold weather periods within each balancing authority area.²⁴

11. Proposed Reliability Standard EOP-011-4 Requirement R1 would also require that transmission operators implement operator-controlled manual load shed, Undervoltage Load Shed (UVLS), or UFLS in operating plans.²⁵ Proposed Requirement R7 requires transmission operators to annually identify and notify distribution providers, UFLS-only distribution providers, and transmission owners that they are required to assist with the mitigation of operating emergencies in its transmission operator area.²⁶ Finally, proposed Requirement R8 states that each distribution provider, UFLS-only distribution provider, and transmission owner notified by a transmission operator per proposed Requirement R7 to assist with the mitigation of operating emergencies must develop, maintain, and implement a load shedding plan.²⁷

²¹ Reliability Standard EOP-011-3, Requirements R3, R4, and R5 are unchanged from the approved version. *See N. Am. Elec. Reliability Corp.*, 176 FERC ¶ 61,119 (approving Reliability Standard EOP-011-2).

²² The applicability section of Reliability Standard EOP-011-3 identifies only balancing authorities, reliability coordinators, and transmission operators as the applicable entities.

²³ NERC Petition at 30-31; *see also id.* Ex. C-1 at 5.

²⁴ *Id.* at 39.

²⁵ *Id.*

²⁶ *Id.* at 35.

²⁷ *Id.* at 35-36.

12. NERC also requests approval of proposed Reliability Standard TOP-002-5 to provide greater specificity regarding the balancing authority's responsibilities in extreme cold weather. According to NERC, this proposed Reliability Standard would address parts of Key Recommendation 1g of the November 2021 Report.²⁸

13. According to NERC, proposed Reliability Standard TOP-002-5 is unchanged from the prior version except for the addition of one new requirement, Requirement R8.²⁹ Proposed Requirement R8 would require each balancing authority to have an operating process³⁰ for extreme cold weather that includes: (1) a methodology for identifying "extreme cold weather conditions" in the area; (2) a methodology for determining an appropriate extreme cold weather reserve margin for the area, considering the types of operating limitations that have been known to limit resource availability in cold weather; and (3) a methodology for determining a five-day hourly forecast that accounts for all relevant operational considerations, including resource availability, demand, reserve requirements, and forecasted weather.³¹

14. NERC requests that the Commission approve the proposed violation risk factors and violation severity levels for proposed Reliability Standards EOP-011-4 and TOP-002-5. Further, NERC proposes an effective date for proposed Reliability Standard EOP-011-4 beginning on the first day of the first calendar quarter that is six months following regulatory approval.³² Once identified and notified to assist by their

²⁸ See *id.* at 41-42 (citing the November 2021 Report at 190-91, which states that key recommendation 1g proposes enhancements to Reliability Standard TOP-003 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").

²⁹ Proposed Reliability Standard TOP-002-5, Requirements R1, R2, R3, R4, R5, R6, and R7 are unchanged from the mandatory and enforceable version, Reliability Standard TOP-002-4.

³⁰ NERC defines the term "operating process" as 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. . . ." NERC, *Glossary of Terms Used in NERC Reliability Standards*, 21 (Dec. 2023), [https://www.nerc.com/pa/Stand/Glossary of Terms/Glossary_of_Terms.pdf](https://www.nerc.com/pa/Stand/Glossary_of_Terms/Glossary_of_Terms.pdf).

³¹ NERC Petition at 43-48.

³² See *id.* at Ex. B at 2-4; see also *id.* at 49 n.96 (observing that transmission operators will be required to comply with proposed Reliability Standard EOP-011-4 Requirement R7 and perform their first annual identification and notification to newly applicable entities by the effective date of the Reliability Standard).

transmission operators pursuant to proposed Requirement R7, the newly applicable entities (distribution providers, UFLS-only distribution providers, and transmission owners) will have 30 months to develop a load shedding plan pursuant to proposed Requirement R8. Transmission operators and balancing authorities would also have 30 months from the effective date of proposed Reliability Standard EOP-011-4 to comply with the revised provisions specific to UFLS, UVLS, and critical gas infrastructure loads.³³ NERC also requests that the Commission approve the retirement of Reliability Standard EOP-011-3 immediately prior to the effective date of Reliability Standard EOP-011-4; or, of Reliability Standard EOP-011-2 if it is the version of EOP-011 in effect at the time that proposed Reliability Standard EOP-011-4 becomes effective. NERC explains that this proposed implementation plan is necessary given the large amount of interaction that will be required between the applicable entities and natural gas entities to identify critical natural gas infrastructure loads and account for them as required in manual shedding and underfrequency and undervoltage load shedding schemes.³⁴

15. NERC proposes an effective date for proposed Reliability Standard TOP-002-5 beginning on the first day of the first calendar quarter that is 18 months following regulatory approval. NERC requests that the Commission approve the retirement of Reliability Standard TOP-002-4 immediately prior to the effective date of Reliability Standard TOP-002-5. NERC states that the proposed implementation plan reflects consideration of the time needed to develop an extreme cold weather operating process, with the required methodologies reflecting the minimum cold weather reliability considerations identified in proposed Requirement R8.³⁵

16. Finally, NERC requests that the Commission approve the proposed Reliability Standards in an expedited manner. NERC explains that, among other things, expedited approval would provide regulatory certainty to entities seeking to implement the proposed Reliability Standards ahead of the mandatory and enforceable dates.³⁶

II. Notice of Filing and Responsive Pleadings

17. Notice of NERC's October 30, 2023, petition was published in the *Federal Register*, 88 Fed. Reg. 76,201 (Nov. 6, 2023), with comments, protests, and motions to intervene due on or before November 30, 2023.

³³ Proposed Reliability Standard EOP-011-4 Requirements R1, Part 1.2.5 (transmission operator), Requirement R2 Part 2.2.8 and Part 2.2.9 (balancing authority).

³⁴ NERC Petition at 48-49.

³⁵ *Id.* at 50.

³⁶ *Id.* at 53.

18. There were no comments or protests. Ameren Service Company, as an agent for Union Electric Company, filed a motion to intervene.

III. Determination

A. Procedural Matters

19. Pursuant to Rule 214 of the Commission's Rules of Practice and Procedure, 18 C.F.R. § 385.214 (2023), the timely, unopposed motions to intervene serve to make the entities that filed them parties to this proceeding.

B. Substantive Matters

20. Pursuant to section 215(d)(2) of the FPA, we approve proposed Reliability Standards EOP-011-4 and TOP-002-5 as just, reasonable, not unduly discriminatory or preferential, and in the public interest. We also approve the proposed Reliability Standards' associated violation risk factors and violation severity levels, proposed Reliability Standard TOP-002-5 implementation plan, and the retirement of currently effective Reliability Standard TOP-002-4. We agree with NERC that the proposed modifications to the Reliability Standards are consistent with and respond to Key Recommendations 1g, 1h, and 1i from the November 2021 Report.¹ Given the importance of these revised Reliability Standards to maintaining the reliable operation of the Bulk-Power System, we strongly encourage entities that are capable of complying earlier than the mandatory and enforceable date to do so.

21. We defer our decision on whether to approve or modify NERC's proposed implementation plan for proposed Reliability Standard EOP-011-4 (and the proposed retirement of Reliability Standard EOP-011-2) until NERC submits the revised applicability section for Reliability Standard EOP-012-1.² As mentioned in the Commission's February 2023 Order,³ allowing Reliability Standard EOP-011-2 requirements to remain mandatory and enforceable until such time as the revised applicability is effective for Reliability Standard EOP-012-1 will ensure all bulk electric system generating units are required to maintain cold weather preparedness plans and associated trainings.

22. We find that proposed Reliability Standard EOP-011-4 materially improves the reliable operation of the Bulk-Power System, is an improvement over the 2021 and 2023-

¹ See November 2021 Report at 190-91, 208-09.

² NERC states that it will submit a revised EOP-012 Reliability Standard, specifically, Reliability Standard EOP-012-2, by the Commission's February 2024 deadline. See NERC Petition at 21, 51.

³ See February 2023 Order, 182 FERC ¶ 61,094 at PP 5, 59.

approved cold weather Reliability Standards, and enhances reliability by requiring balancing authorities, transmission operators, and load shedding entities to account for critical natural gas infrastructure loads in the demand response and emergency load shedding programs they oversee. Doing so will help ensure that deploying these programs in extreme cold weather conditions will not exacerbate natural gas fuel supply issues, which could constrain generating unit capacity and thereby threaten the reliable operation of the Bulk-Power System. Accordingly, we approve Reliability Standard EOP-011-4 as proposed.

23. Under Reliability Standard EOP-011-4, Requirement R1, each transmission operator must include provisions in its operating plan(s) for the identification of designated critical natural gas infrastructure loads that are essential to the reliability of the bulk electric system.⁴ This Reliability Standard also requires that each distribution provider, UFLS-only distribution provider, and transmission owner include provisions in its load shedding plan(s) for the identification of designated critical natural gas infrastructure loads that are “essential to the reliability of the bulk electric system.”⁵ While Reliability Standard EOP-011-4 employs a flexible approach for the above entities to identify critical natural gas infrastructure loads, this Reliability Standard may require coordination and communication between electric and natural gas entities pertaining to extreme cold weather beyond what has historically occurred.⁶ As such, we strongly encourage the electric and natural gas entities that play a role in these Reliability Standards to voluntarily begin enhancing their coordination and communication this winter season, prior to the Reliability Standard’s mandatory and enforceable effective date.

24. We find that proposed Reliability Standard TOP-002-5 materially improves the reliable operation of the Bulk-Power System, represents an improvement to the existing Reliability Standards, and enhances reliability by requiring that balancing authorities have comprehensive operating processes for extreme cold weather periods in their areas. Proposed Reliability Standard TOP-002-5 also requires each balancing authority to notify the entities identified in these operating plans of their respective roles and to provide the operating plans to its reliability coordinator for visibility. Proposed Reliability Standard TOP-002-5 recognizes that there have been several past extreme cold weather events where load and resource balancing issues have occurred due to unexpected generator trips and higher loads than forecasted. Proposed Requirement R8 formalizes the balancing

⁴ Reliability Standard EOP-011-4, Requirement R1, Part 1.2.5.5.

⁵ *Id.*, Requirement R8, Part 8.1.5.

⁶ See NERC Petition at 32-33 (stating that one method for identifying such loads may include distributing criteria to natural gas infrastructure entities to identify the critical facilities that would likely affect bulk electric system reliability adversely if de-energized).

authority's process to review and respond to oncoming conditions that may affect generation availability and capability, to forecast load, and to determine whether additional capability or reserves should be ready to serve loads during extreme cold weather. These changes will be beneficial by providing greater specificity about the relative roles of generators and the balancing authority in preparing for reliable cold weather operations. Accordingly, we approve Reliability Standard TOP-002-5 as proposed.

IV. Information Collection Statement

25. The information collection requirements contained in this Order are subject to review by the Office of Management and Budget (OMB) under section 3507(d) of the Paperwork Reduction Act of 1995.¹ OMB's regulations require approval of certain information collection requirements imposed by agency rules.² Upon approval of a collection of information, OMB will assign an OMB control number and expiration date. Comments on the collection of information are due within 60 days of the date this order is published in the *Federal Register*. Respondents subject to the filing requirements of this rule will not be penalized for failing to respond to these collections of information unless the collections of information display a valid OMB control number.

26. The Commission solicits comments on the Commission's need for this information, whether the information will have practical utility, the accuracy of the burden estimates, ways to enhance the quality, utility, and clarity of the information to be collected or retained, and any suggested methods for minimizing respondents' burden, including the use of automated information techniques.

27. The EOP Reliability Standards are currently located in the FERC-725S (OMB Control No. 1902-0270) collection. The collection is currently approved by OMB and contains Reliability Standards EOP-010-1, EOP-011-2, EOP-004-4, EOP-005-3, EOP-006-3, EOP-008-2, and EOP-012-1. There is one Reliability Standard that is being updated within the FERC-725S due to the revisions in Docket No. RD24-1-000: Reliability Standard EOP-011-4. The currently approved Reliability Standard is EOP-011-3, which is being replaced by Reliability Standard EOP-011-4 (Table 1).

28. The TOP Reliability Standards are currently located in FERC-725A (OMB Control No. 1902-0270) collection. This collection is currently approved by OMB and contains Reliability Standards TOP-001-4, TOP-002-4, TOP-003-4, FAC-008-5, FAC-003-2, and "Mandatory Reliability Standards" recordkeeping and reporting. There are six information collections within the FERC-725A that will remain unchanged from the revisions in Docket No. RD24-1-000. These six collections include the Reliability

¹ 44 U.S.C. § 3507(d).

² 5 C.F.R. § 1320 (2023).

Standards: TOP-001-4, TOP-003-4, FAC-008-5, FAC-003-2, and “Mandatory Reliability Standards” recordkeeping and reporting. There is one Reliability Standard being updated within the FERC-725A due to revisions in Docket No. RD24-1-000: Reliability Standard TOP-002-4, which is being replaced by Reliability Standard TOP-002-5 (Table 2).

29. The number of respondents below is based on an estimate of the NERC compliance registry for balancing authorities, transmission operators, reliability coordinators, transmission owners, distribution providers and UFLS-Only distribution providers. Reliability Standard EOP-011-4 applies to balancing authorities, transmission operators, reliability coordinators, transmission owners, distribution providers and UFLS-Only distribution providers. Reliability Standard TOP-002-5 applies to transmission operators and balancing authorities, for this estimate new Requirement R8 applies to the balancing authorities. The Commission based its paperwork burden estimates on the NERC compliance registry as of December 15, 2023. According to the registry there are 98 balancing authorities, 165 transmission operators, and 12 reliability coordinators. The estimates in the tables below are based on the change in burden from the Reliability Standards approved in this order. The Commission based the burden estimates in the tables below on staff experience, knowledge, and expertise.

30. *Public Reporting Burden:* The estimated costs and burden for the revisions in Docket No. RD24-1-000 are shown in the tables below.

Table 1: Proposed Changes to FERC 725S Due to Modifications in Docket No. RD24-1-000					
Reliability Standard & Requirement	Type³ and Number of Entity (1)	Number of Annual Responses Per Entity (2)	Total Number of Responses (1)*(2)=(3)	Average Number of Burden Hours per Response⁴ (4)	Total Burden Hours (3)*(4)=(5)

³ TOP = Transmission Operator, BA = Balancing Authority, RC = Reliability Coordinator, UFLS-Only DP = Underfrequency Load Shed-Only Distribution Provider, DP = Distribution Provider, and TO = Transmission Owner.

⁴The estimated hourly cost (salary plus benefits) is a combination based on the Bureau of Labor Statistics (BLS), as of 2023, for 75% of the average of an Electrical Engineer (17-2071) - \$77.29, mechanical engineers (17-2141) - \$87.38. $\$77.29 + \$87.38/2 = 82.335 \times .75 = 54.303$ (**\$61.75 rounded**) (**\$61.75/hour**) and 25% of an Information and Record Clerk (43-4199) $\$56.14 \times .25\% = 14.035$ (**\$14.04 rounded**) (**\$14.04/hour**), for a total ($\$61.75 + \$14.04 =$ **\$75.79/hour**).

FERC-725S – Proposed estimates due to RD24-1 for EOP-011-4					
One Time Estimate - Years 1 and 2 in EOP-011-4					
EOP-011-4	165 (TOP)	1	165	40 hrs. \$ \$3,031.60	6,600 hrs. \$500,214.00
EOP-011-4	98 (BA)	1	98	20 hrs. \$1,515.80	1,960 hrs. \$148,548.40
EOP-011-4	12 (RC)	1	12	20 hrs. \$1,515.80	240 hrs. \$18,189.60
EOP-011-4	72 (UFLS- Only DP)	1	72	40 hrs. \$3,031.60	2,880 hrs. \$218,275.20
EOP-011-4	300 (DP)	1	300	40 hrs. \$3,031.60	12,000 hrs. \$909,480.00
EOP-011-4	324 (TO)	1	324	40 hrs. \$3,031.60	12,960 hrs. \$982,238.40
Sub-total of EOP-011-4 (One time)			971		36,640 hrs. \$2,776,945.60
Annualized One-Time Costs (average cost per year is calculated by the sub- total divided by 3)			323.67 (rounded)		12,213 hrs. (rounded) \$925,623.27

Ongoing Estimate – Year 3 ongoing EOP-011-4					
EOP-011-4	165(TOP)	1	165	20 hrs. \$1,515.80	3,300 hrs. \$250,107.00
EOP-011-4	98 (BA)	1	98	4 hrs. \$303.16	392 hrs. \$29,709.68
EOP-011-4	12 (RC)	1	12	4 hrs. \$303.16	48 hrs. \$3,637.92
EOP-011-4	72 (UFLS- Only DP)	1	72	10 hrs. \$757.90	720 hrs. \$54,568.80
EOP-011-4	300 (DP)	1	300	10 hrs. \$757.90	3,000 hrs. \$227,370.00
EOP-011-4	324 (TO)	1	324	10 hrs. \$757.90	3,240 hrs. \$245,559.60
Sub-Total of EOP-011-4 (ongoing)			971		10,700 \$810,953.00
Sub-Total of ongoing burden averaged over three years			323.67 (rounded)		3,566.67 hrs. (rounded) \$270,317.92
Proposed Total Annual Burden Estimate of EOP-011-4			647.34		15,779.67 hrs. \$1,195,941.19 (rounded)

(one-time plus ongoing)					
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Table 2: Proposed Changes to FERC 725A Due to Modifications in Docket No. RD24-1-000					
Requirement change	Type⁵ and Number of Respondents (1)	Annual Number of Responses per Respondent (2)	Total Number of Responses (1)*(2)=(3)	Average Burden & Cost Per Response⁶ (4)	Total Annual Burden Hours & Total Annual Cost (3)*(4)=(5)
FERC-725A – Proposed estimates due to RD24-1					
One Time Estimate - Years 1 and 2 in TOP-002-5					
TOP-002-5	98 (BA)	1	98	40 hrs. \$3,031.60	3,920 hrs., \$297,096.80
Ongoing Estimate – Year 3 ongoing TOP-002-5					
TOP-002-5	98 (BA)	1	98	20 hrs. \$1,515.80	1,960 hrs., \$148,548.40
Sub-Total of One-Time estimate for years 1 and 2			98	40 hrs. \$3,031.60	3,920 hrs., \$297,096.80

⁵ BA = Balancing Authority.

⁶ The estimated hourly cost (salary plus benefits) is a combination based on the Bureau of Labor Statistics (BLS), as of 2023, for 75% of the average of an Electrical Engineer (17-2071) - \$77.29, mechanical engineers (17-2141) - \$87.38. $\$77.29 + \$87.38/2 = 82.335 \times .75 = 54.303$ (**\$61.75 rounded**) (**\$61.75/hour**) and 25% of an Information and Record Clerk (43-4199) $\$56.14 \times .25\% = 14.035$ (**\$14.04 rounded**) (**\$14.04/hour**), for a total ($\$61.75 + \$14.04 =$ **\$75.79/hour**).

Sub-Total for Ongoing estimate of year 3 and beyond			98	20 hrs. \$1,515.80	1,960 hrs., \$148,548.40
Annualized one-time Total burden for years 1 and 2 (one-time sub-total divided by 3)			32.67 (rounded)	13.33 hrs. (rounded) \$1,010.28	1,306.67 hrs. \$99,032.52 (rounded)
Annualized ongoing total burden for years 3 and beyond (ongoing sub-total divided by 3)			32.67 (rounded)	6.67 hrs. \$505.52 (rounded)	653.33 hrs. \$49,515.88 (rounded)
Annualized Total Burden Estimate of TOP-002-5			65.34	20 hrs. \$1,515.80	1,960 hrs. 148,548.40

Titles: FERC-725S (Mandatory Reliability Standards: Emergency Preparedness and Operations (EOP) Reliability Standards)); FERC-725A (Mandatory Reliability Standards for the Bulk-Power System).

Action: Revision to Existing Collections of Information in FERC-725S and FERC-725A.

OMB Control Nos: 1902-0270 (FERC 725S); 1902-0244 (FERC-725A).

Respondents: Business or other for profit, and not for profit institutions.

Frequency of Responses: Annually.

Necessity of the Information: Reliability Standards EOP-011-4 (Emergency Operations) and TOP-002-5 (Operations Planning) are part of the implementation of the Congressional mandate of the Energy Policy Act of 2005 to develop mandatory and enforceable Reliability Standards to better ensure the reliability of the nation's Bulk-Power System. Specifically, the revised Reliability Standard EOP-011-4 addresses the effects of operating emergencies by ensuring that each transmission operator and balancing authority has developed plan(s) to mitigate operating emergencies and that those plans are implemented and coordinated within the reliability coordinator area. Further, revised Reliability Standard TOP-002-5 ensures that transmission operators and balancing authorities have plans for operating within specified limits.

Internal review: The Commission has reviewed the revised Reliability Standards and made a determination that its action is necessary to implement section 215 of the FPA. The Commission has assured itself, by means of its internal review, that there is specific, objective support for the burden estimates associated with the information requirements.

- a. Description of the Revision to FERC-725S: The FERC-725S (OMB Control No. 1902-0270) is an existing information collection that contains the requirements for the EOP-011-3 Reliability Standard. As described in the Docket No. RD24-1-000 above, the Reliability Standard (EOP-011-3) is proposed to be retired and replaced by EOP-011-4.
- b. Description of the Revision to FERC-725A: The FERC-725A (OMB Control No. 1902-0244) is an existing information collection that contains the requirements for the TOP-002-4 Reliability Standard.⁷ As described in Docket No. RD24-1-000 above, Reliability Standard TOP-002-4 is approved to be retired and replaced by TOP-002-5.

31. Interested persons may obtain information on the reporting requirements by contacting the Federal Energy Regulatory Commission, Office of the Executive Director, 888 First Street, NE, Washington, DC 20426 [Attention: Jean Sonneman, email: DataClearance@ferc.gov, phone: (202) 502-8663, fax: (202) 273-0873].

32. Comments concerning the information collections and requirements approved for retirement in this order and the associated burden estimates, should be sent to the Commission (identified by Docket No. RD24-1-000), using the following methods: Electronic filing through <https://www.ferc.gov> is preferred. Electronic Filing should be filed in acceptable native applications and print-to-PDF, but not in scanned or picture format. For those unable to file electronically, comments may be filed by USPS mail or by hand (including courier) delivery: Mail via U.S. Postal Service Only: Addressed to: Federal Energy Regulatory Commission, Secretary of the Commission, 888 First Street,

⁷ This collection is currently pending at OMB for an unrelated matter.

N.E., Washington, DC 20426. Hand (including courier) delivery: Deliver to: Federal Energy Regulatory Commission, 12225 Wilkins Avenue, Rockville, MD 20852.

V. Environmental Analysis

33. The Commission is required to prepare an Environmental Assessment or an Environmental Impact Statement for any action that may have a significant adverse effect on the human environment.¹ The Commission has categorically excluded certain actions from this requirement as not having a significant effect on the human environment. Included in the exclusion are rules that are clarifying, corrective, or procedural or that do not substantially change the effect of the regulations being amended.² The actions directed herein fall within this categorical exclusion in the Commission's regulations.

VI. Document Availability

34. In addition to publishing the full text of this document in the Federal Register, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the Internet through the Commission's Home Page (<http://www.ferc.gov>).

35. From the Commission's Home Page on the Internet, this information is available on eLibrary. The full text of this document is available on eLibrary in PDF and Microsoft Word format for viewing, printing, and/or downloading. To access this document in eLibrary, type the docket number excluding the last three digits of this document in the docket number field.

36. User assistance is available for eLibrary and the Commission's website during normal business hours from the Commission's Online Support at (202) 502-6652 (toll free at 1-866-208-3676) or email at ferconlinesupport@ferc.gov, or the Public Reference Room at (202) 502-8371, TTY (202) 502-8659. E-mail the Public Reference Room at public.referenceroom@ferc.gov.

The Commission orders:

(A) Reliability Standards EOP-011-4 and TOP-002-5 and their associated violation risk factors and violation severity levels are hereby approved, as discussed in the body of this order.

(B) The decision on whether to approve or modify NERC's proposed implementation date for Reliability Standard EOP-011-4 (and the proposed retirement of

¹ *Reguls. Implementing the Nat'l Env't Pol'y Act*, Order No. 486, FERC Stats. & Regs. ¶ 30,783 (1987) (cross-referenced at 41 FERC ¶ 61,284).

² 18 C.F.R. § 380.4(a)(2)(ii) (2023).

Reliability Standard EOP-011-2 and EOP-011-3) is hereby deferred until NERC submits its revised applicability section for Reliability Standard EOP-012-2.

By the Commission. Commissioner Clements is concurring with a separate statement attached.

(S E A L)

Debbie-Anne A. Reese,
Acting Secretary.

UNITED STATES OF AMERICA
FEDERAL ENERGY REGULATORY COMMISSION

North American Electric Reliability Corporation

Docket No. RD24-1-000

(Issued February 14, 2024)

CLEMENTS, Commissioner, *concurring*:

1. While I am voting with my colleagues to approve these revised Reliability Standards, I am writing separately to express my concern with the delayed implementation timeline for EOP-011-4.
2. Today's order highlights "the importance of these revised Reliability Standards to maintaining the reliable operation of the Bulk-Power System."¹ But this stated importance is undercut by the extended time granted to affected Registered Entities to implement the new requirements. Specifically, NERC proposed that EOP-011-4 become effective on the first day of the first calendar quarter that is six months following regulatory approval,² and then for each affected Registered Entity to have *at least* 30 months after this effective date to comply with the new and revised provisions of the requirement.³ Under the best of scenarios, this would mean that these new and revised provisions would be implemented no sooner than April 1, 2027— three years, and crucially, three winters from today.⁴
3. Three years after regulatory approval to implement changes to a Reliability Standard is an awfully long time. By the time these standards are implemented, recent experience has taught us that we are likely to face one or more dangerous winter storms. As with Uri in February 2021, Elliott in December 2022, and Gerri/Heather in January

¹ Order, 186 FERC ¶ 61,115, at P 20 (2024).

² By my calculation, this would mean October 1, 2024.

³ NERC, Petition, Docket No. RD24-1-000, Exhibit B "Implementation Plan" at 3 (filed Oct. 30, 2023).

⁴ However, as discussed in the draft order, the actual effective date and implementation plan for EOP-011-4 hinges on NERC's upcoming submission, and Commission approval, of a revised applicability section for EOP-012. If the Commission was to reject the revised applicability section of EOP-012, it is unclear to me when we can expect the requirements to EOP-011-4 (and the preceding, but also yet to be effective, EOP-011-3) to be implemented.

2024, widespread, long duration winter storms that threaten the reliability of our system are no longer rare events, but rather nearly annual occurrences.

4. I appreciate that NERC has continually worked with its stakeholders to advance improved Reliability Standards for cold weather operations and preparedness following Winter Storm Uri and the subsequent Staff Report.⁵ I also recognize that the 30-month implementation timeframe is responsive to some stakeholders' concerns about the potential time needed to implement any physical changes necessary to comply with the requirements of the revised standard. However, considering the urgency of the winter storm risk that faces our system, this is not the first time that I have been left wondering if our processes for drafting and implementing needed Reliability Standards, whether they be cold weather standards or cybersecurity standards, are too slow to keep up with needed change.⁶

For these reasons, I respectfully concur.

Allison Clements
Commissioner

⁵ See FERC, NERC, and Regional Entity Staff, *The February 2021 Cold Weather Outages in Texas and the South Central United States*, 19 (Nov. 16, 2021) (November 2021 Report), <https://www.ferc.gov/media/february-2021-cold-weather-outages-texas-and-south-central-united-states-ferc-nerc-and>.

⁶ See e.g., *Transcript of the 1097th Meeting*, FERC, at 21 (Jan. 19, 2023), <https://www.ferc.gov/media/transcript-january-2023-commission-meeting> (“I’m very pleased that we are directing a firm 15-month deadline for NERC to propose the standards The processes take time, but it is imperative that we get this important cybersecurity measure in place as quickly as it is feasible.”); *Transcript of the 1098th Meeting*, FERC, at 23-24 (Feb. 16, 2023), <https://www.ferc.gov/media/transcript-february-2023-commission-meeting> (“[T]he critical generator weatherization requirements as proposed are, to be frank, not up to the task. The proposal before us requires existing generators to weatherize so they are capable of operating for one hour at extreme cold temperatures beginning in April of 2027. . . . [W]aiting [for] four additional winters before weatherization requirements actually kick in does not reflect the urgency we feel.”).