

February 27, 2020

VIA ELECTRONIC FILING

Veronique Dubois
Régie de l'énergie
Tour de la Bourse
800, Place Victoria
Bureau 255
Montréal, Québec H4Z 1A2

Re: *North American Electric Reliability Corporation*

Dear Mr. Dubois:

The North American Electric Reliability Corporation (“NERC”) hereby submits Notice of Filing of the North American Electric Reliability Corporation of Reliability Standards Developed Under the Standards Alignment with Registration Project. NERC requests, to the extent necessary, a waiver of any applicable filing requirements with respect to this filing.

Please contact the undersigned if you have any questions concerning this filing.

Respectfully submitted,

/s/ Lauren Perotti

Lauren Perotti
*Senior Counsel for the North American Electric
Reliability Corporation*

Enclosure

3353 Peachtree Road NE
Suite 600, North Tower
Atlanta, GA 30326
404-446-2560 | www.nerc.com

**BEFORE THE
RÉGIE DE L'ÉNERGIE
THE PROVINCE OF QUÉBEC**

**NORTH AMERICAN ELECTRIC
RELIABILITY CORPORATION**

)
)

**NOTICE OF FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION OF RELIABILITY
STANDARDS DEVELOPED UNDER THE STANDARDS ALIGNMENT WITH
REGISTRATION PROJECT**

Lauren A. Perotti
Senior Counsel
Marisa Hecht
Counsel
North American Electric Reliability Corporation
1325 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 400-3000
(202) 644-8099 – facsimile
lauren.perotti@nerc.net

*Counsel for the North American Electric
Reliability Corporation*

February 27, 2020

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**BEFORE THE
RÉGIE DE L'ÉNERGIE
THE PROVINCE OF QUÉBEC**

**NORTH AMERICAN ELECTRIC)
RELIABILITY CORPORATION)**

**NOTICE OF FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION OF RELIABILITY
STANDARDS DEVELOPED UNDER THE
STANDARDS ALIGNMENT WITH REGISTRATION PROJECT**

The North American Electric Reliability Corporation (“NERC”) hereby submits seven proposed Reliability Standards:

- Reliability Standard FAC-002-3 – Facility Interconnection Studies
- Reliability Standard IRO-010-3 – Reliability Coordinator Data Specification and Collection
- Reliability Standard MOD-031-3 – Demand and Energy Data
- Reliability Standard MOD-033-2 – Steady-State and Dynamic System Model Validation
- Reliability Standard NUC-001-4 – Nuclear Plant Interface Coordination
- Reliability Standard PRC-006-4 – Automatic Underfrequency Load Shedding
- Reliability Standard TOP-003-4 – Operational Reliability Data

The proposed Reliability Standards revise the currently effective versions to align the standards with registration changes submitted in 2015.¹ In the proposed Reliability Standards, references to entities that are no longer registered by NERC are removed. Proposed Reliability Standard PRC-006-3 adds the Underfrequency Load Shedding (“UFLS”)-Only Distribution Provider as an applicable entity. In addition, revisions are proposed to ensure consistent use of the

¹ See *infra* Section II.B.

term Planning Coordinator across the body of NERC Reliability Standards. No substantive revisions are made to the underlying requirements.

The proposed Reliability Standards, as shown in **Exhibit A**, are just, reasonable, not unduly discriminatory or preferential, and in the public interest. NERC also provides notice of: (i) the implementation plan (**Exhibit B**); (ii) the associated Violation Risk Factors (“VRFs”) and Violation Severity Levels (“VSLs”) (**Exhibit D**), which are generally unchanged from the currently effective versions of those standards; and (iii) the retirement of the currently effective versions of the proposed Reliability Standards.

This filing presents the technical basis and purpose of the proposed Reliability Standards, a demonstration that the proposed Reliability Standards continue to meet the Reliability Standards criteria (**Exhibit C**), and a summary of the standard development history (**Exhibit E**). The NERC Board of Trustees adopted the proposed Reliability Standards on February 6, 2020.

This filing is organized as follows: Section I of the filing provides the individuals to whom notices and communications related to the filing should be provided. Section II provides background on the structure governing the Reliability Standards approval process. This section also provides information on the registration changes, developed under NERC’s Risk-Based Registration Initiative and submitted in 2015, which led to the development of the proposed standards. Section III of the filing provides the procedural history for each of the proposed Reliability Standards, a summary of the proposed revisions, and the justification supporting the proposals. Section IV of the filing provides a summary of the proposed implementation plan.

I. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:

Lauren A. Perotti
Senior Counsel
Marisa Hecht
Counsel
North American Electric Reliability
Corporation
1325 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 400-3000
(202) 644-8099 – facsimile
lauren.perotti@nerc.net
marisa.hecht@nerc.net

Howard Gugel
Vice President and Director of Engineering and Standards
North American Electric Reliability Corporation
3353 Peachtree Road, N.E.
Suite 600, North Tower
Atlanta, GA 30326
(404) 446-2560
(404) 446-2595 – facsimile
howard.gugel@nerc.net

II. BACKGROUND

A. NERC Reliability Standards Development Procedure

The proposed Reliability Standards discussed in this filing were developed in an open and fair manner and in accordance with the Reliability Standard development process. NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC Standard Processes Manual.²

NERC's rules provide for reasonable notice and opportunity for public comment, due process, openness, and a balance of interests in developing Reliability Standards, and thus satisfy several of the criteria for approving Reliability Standards. The development process is open to any person or entity with a legitimate interest in the reliability of the BPS. NERC considers the comments of all stakeholders. Stakeholders must approve, and the NERC Board of Trustees must adopt, a new or revised Reliability Standard before NERC submits the Reliability Standard to the applicable governmental authorities. Similarly, stakeholders and the NERC Board of Trustees

² The NERC Rules of Procedure, including Appendix 3A, NERC Standard Processes Manual, is available at <https://www.nerc.com/AboutNERC/Pages/Rules-of-Procedure.aspx>.

must approve the retirement of a Reliability Standard before the retirement is submitted to the applicable governmental authorities.

B. NERC’s Risk-Based Registration Initiative and Project 2017-07 Standards Alignment with Registration

On January 6, 2015, NERC submitted a series of proposed Rules of Procedure revisions to implement the NERC Risk-Based Registration Initiative.³ Two functional categories were removed, Purchasing-Selling Entity and Interchange Authority, from the NERC Compliance Registry due to the commercial nature of these categories posing little or no risk to the reliability of the Bulk-Power System. The revisions also included the creation of a new registration category, UFLS-only Distribution Provider, and the risk-based application of sub-set lists of Reliability Standards to the UFLS-only Distribution Provider. Subsequently, following a compliance filing, the Federal Energy Regulatory Commission (FERC) approved the removal of the Load-Serving Entity from the NERC registry criteria.⁴

Several projects have either already addressed, or will address, Reliability Standards impacted by the registration changes. NERC initiated Project 2017-07 to address any remaining edits to the Reliability Standards that were needed to align the existing Reliability Standards with the registration changes.

The proposed Reliability Standards were posted for formal comment and ballot from October 29, 2019 to December 12, 2019 and for final ballot from January 14, 2020 to January 23, 2020. Having achieved the requisite quorum and ballot body approval percentages, the NERC Board of Trustees adopted the proposed Reliability Standards on February 6, 2020. A summary of

³ *Notice of Filing of the North American Electric Reliability Corporation of Risk-Based Registration Initiative Rules of Procedure Revisions*, (Jan. 6, 2015).

⁴ *N. Am. Elec. Reliability Corp.*, Order on Compliance Filing, 153 FERC ¶ 61,024 at P 24 (2015).

the development history and the complete record of development is attached to this filing as **Exhibit E**.

III. JUSTIFICATION

In this filing, NERC proposes seven revised Reliability Standards:

- Reliability Standard FAC-002-3 – Facility Interconnection Studies
- Reliability Standard IRO-010-3 – Reliability Coordinator Data Specification and Collection
- Reliability Standard MOD-031-3 – Demand and Energy Data
- Reliability Standard MOD-033-2 – Steady-State and Dynamic System Model Validation
- Reliability Standard NUC-001-4 – Nuclear Plant Interface Coordination
- Reliability Standard PRC-006-4 – Automatic Underfrequency Load Shedding
- Reliability Standard TOP-003-4 – Operational Reliability Data

As discussed more fully below, the revisions in the proposed Reliability Standards will align these standards with the previous changes to the NERC registration criteria by removing reference to entities that are no longer registered with NERC. In proposed Reliability Standard PRC-006-4, NERC adds the UFLS-only Distribution Provider as an applicable entity. In two instances, NERC has proposed changes that will promote consistent use of the term Planning Coordinator across the Reliability Standards. Where appropriate, NERC has made corresponding revisions to the VRFs, VSLs, measures, and the supplemental material included as information. No substantive changes are proposed to any Reliability Standard requirement.

The proposed revisions will promote alignment and consistency across NERC Reliability Standards and the NERC registration criteria and will reduce the potential for confusion regarding which entities are responsible for compliance with the standards. For these reasons, the proposed Reliability Standards are just, reasonable, not unduly discriminatory or preferential, and in the

public interest. The following sections provide a brief overview of the procedural history for each standard and a summary of the changes and supporting justification.

A. Proposed Reliability Standard FAC-002-3 – Facility Interconnection Studies

1. Procedural History

The first version of the FAC-002 Reliability Standard, FAC-002-0, was submitted on April 4, 2006. Reliability Standard FAC-002-1 was submitted on August 27, 2012. Reliability Standard FAC-002-2 was submitted on August 27, 2014.

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard FAC-002-3, which remains unchanged from the currently effective version, is “to study the impact of interconnecting new or materially modified Facilities on the Bulk Electric System.” The currently effective standard is applicable to the Planning Coordinator, Transmission Planner, Transmission Owner, Distribution Provider, Generator Owner (including Applicable Generator Owner as defined in the standard), and the Load-Serving Entity. As the Load-Serving Entity is no longer a NERC registration category, NERC proposes to remove this entity from the applicability section of proposed Reliability Standard FAC-002-3 and remove reference to this entity in Requirement R3. This revision aligns the FAC-002 standard with the NERC registration criteria and reduces the potential for confusion regarding which entities must comply with the standard.

B. Proposed Reliability Standard IRO-010-3 – Reliability Coordinator Data Specification and Collection

1. Procedural History

The first version of the IRO-010 Reliability Standard, Reliability Standard IRO-010-1a, was submitted on January 21, 2010. Reliability Standard IRO-010-2 was submitted on March 25, 2015.

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard IRO-010-3, which remains unchanged from the currently effective version, is “to prevent instability, uncontrolled separation, or Cascading outages that adversely impact reliability, by ensuring the Reliability Coordinator has the data it needs to monitor and assess the operation of its Reliability Coordinator Area.” The currently effective standard is applicable to the Reliability Coordinator, Balancing Authority, Generator Owner, Generator Operator, Load-Serving Entity, Transmission Operator, Transmission Owner, and Distribution Provider. As the Load-Serving Entity is no longer a NERC registration category, NERC proposes to remove this entity from the applicability section of proposed Reliability Standard IRO-010-3 and remove reference to this entity in Requirement R3. As with other standards in which this revision is made, this revision will align the standard with the NERC registration criteria and reduce the potential for confusion regarding which entities must comply with the standard.

C. Proposed Reliability Standard MOD-031-3 – Demand and Energy Data

1. Procedural History

The first version of the MOD-031 Reliability Standard, MOD-031-1, was submitted on May 20, 2014. Reliability Standard MOD-031-2 was submitted on November 20, 2015.

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard MOD-031-3, which remains unchanged from the currently effective version, is “to provide authority for applicable entities to collect Demand, energy and related data to support reliability studies and assessments and to enumerate the responsibilities and obligations of requestors and respondents of that data.” The currently

effective standard is applicable to the Planning Authority/Planning Coordinator, Transmission Planner, Balancing Authority, Resource Planner, Load-Serving Entity, and Distribution Provider.

As the Load-Serving Entity is no longer a NERC registration category, NERC proposes to remove this entity from the applicability section of proposed Reliability Standard MOD-031-3 and remove reference to this entity in Requirement R1 Part 1.1, where it is listed as an “Applicable Entity” for purposes of Requirements R2 and R4. Additionally, NERC proposes to strike the term “Planning Authority” from the applicability section of the standard and the explanatory text that follows. The preferred terminology for the responsible entity that coordinates and integrates transmission Facilities and service plans, resource plans, and Protection Systems is Planning Coordinator. The proposed changes are intended to promote alignment with the registration criteria, ensure consistency in terminology, and reduce the potential for confusion regarding which entities are responsible for compliance with the standard.

D. Proposed Reliability Standard MOD-033-2 – Steady-State and Dynamic System Model Validation

1. Procedural History

Reliability Standard MOD-033-1 was submitted on March 11, 2014.

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard MOD-033-2, which remains unchanged from the currently effective version, is “to establish consistent validation requirements to facilitate the collection of accurate data and building of planning models to analyze the reliability of the interconnected transmission system.” The currently effective standard is applicable to the Planning Authority/Planning Coordinator, Reliability Coordinator, and Transmission Operator. In proposed Reliability Standard MOD-033-2, NERC proposes to strike the term “Planning Authority” from the applicability section of the standard and the explanatory text that follows. As noted in the

preceding section, the proposed change is intended to promote consistent use of “Planning Coordinator” throughout the Reliability Standards.

E. Proposed Reliability Standard NUC-001-4 – Nuclear Plant Interface Coordination

1. Procedural History

The first version of the NUC-001 Reliability Standard, NUC-001-1, was submitted on November 27, 2007. Reliability Standard NUC-001-2 was submitted on September 10, 2009. On March 19, 2013, NERC submitted a filing for the retirement of NUC-001-2 Requirements R9.1, R9.1.1, R9.1.2, R9.1.3, and R9.1.4. FERC approved currently effective Reliability Standard NUC-001-3 in 2014.⁵

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard NUC-001-4, which remains unchanged from the currently effective version, is as follows: “This standard requires coordination between Nuclear Plant Generator Operators and Transmission Entities for the purpose of ensuring nuclear plant safe operation and shutdown.” The standard is applicable to Nuclear Plant Generator Operators and Transmission Entities, which may include Transmission Operators, Transmission Owners, Transmission Planners, Transmission Service Providers, Balancing Authorities, Reliability Coordinators, Planning Coordinators, Distribution Providers, Load-Serving Entities, Generator Owners, and Generator Operators. As the Load-Serving Entity is no longer a NERC registration category, NERC proposes to remove this entity from the list of applicable Transmission Entities in the applicability section of proposed Reliability Standard NUC-001-4. As with other standards in which this revision is made, this revision will align the standard with the NERC registration

⁵ *N. Am. Elec. Reliability Corp.*, Docket No. RD14-13-000 (Nov. 4, 2014) (delegated letter order).

criteria and reduce the potential for confusion regarding which entities must comply with the standard.

F. Proposed Reliability Standard PRC-006-4 – Automatic Underfrequency Load Shedding

1. Procedural History

Reliability Standard PRC-006-1 was submitted on April 13, 2011. Reliability Standard PRC-006-2 was submitted on December 30, 2014. Reliability Standard PRC-006-3 added a regional Variance for the Quebec Interconnection and was submitted on September 5, 2017.

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard PRC-006-4, which remains unchanged from the currently effective version, is “to establish design and documentation requirements for automatic underfrequency load shedding (UFLS) programs to arrest declining frequency, assist recovery of frequency following underfrequency events and provide last resort system preservation measures.” The currently effective standard is applicable to Planning Coordinators, “UFLS entities” (which may include Transmission Owners and Distribution Providers that own, operate, or control UFLS equipment), and Transmission Owners that own certain Elements. In proposed Reliability Standard PRC-006-4, NERC proposes to add the UFLS-Only Distribution Provider as an applicable UFLS entity, consistent with the language in Section III(b) of Appendix 5B of the NERC Rules of Procedure (Statement of Compliance Registry Criteria) that the Reliability Standards applicable to UFLS-Only Distribution Providers includes prior effective versions of the PRC-006 standard.

G. Proposed Reliability Standard TOP-003-4 – Operational Reliability Data

1. Procedural History

The first version of the TOP-003 Reliability Standard, TOP-003-0, was submitted on April

4, 2006. Reliability Standard TOP-003-1 was submitted on January 21, 2010. Reliability Standard TOP-003-3 was submitted on March 25, 2015.

2. Summary of Proposed Revisions

The purpose of proposed Reliability Standard TOP-003-4, which remains unchanged from the currently effective version, is “to ensure that the Transmission Operator and Balancing Authority have data needed to fulfill their operational and planning responsibilities.” The currently effective standard is applicable to the Transmission Operator, Balancing Authority, Generator Owner, Generator Operator, Load-Serving Entity, Transmission Owner, and Distribution Provider. As the Load-Serving Entity is no longer a NERC registration category, NERC proposes to remove this entity from the applicability section of proposed Reliability Standard TOP-003-4 and remove reference to this entity in Requirement R5. As with other standards in which this revision is made, this revision will align the standard with the NERC registration criteria and reduce the potential for confusion regarding which entities must comply with the standard.

H. Enforceability of the Proposed Reliability Standards

The proposed Reliability Standards contain Violation Risk Factors (“VRFs”) and Violation Severity Levels (“VSLs”) for each of the requirements. The VRFs and VSLs provide guidance on the way that NERC will enforce the requirements of the proposed Reliability Standards. The VRFs and VSLs are substantively unchanged from currently effective versions of the Reliability Standards, reflecting only those revisions necessary to effectuate the proposed alignment revisions. As such, they continue to comport with NERC and FERC guidelines related to their assignment.

In addition, the proposed Reliability Standards also include measures that support the requirements by clearly identifying what is required and how the requirement will be enforced. The measures help ensure that the requirements will be enforced in a clear, consistent, and non-preferential manner and without prejudice to any party. The measures are substantively unchanged

from currently enforceable versions of the Reliability Standards, reflecting only those revisions necessary to effectuate the proposed alignment revisions.

IV. EFFECTIVE DATE

The proposed implementation plan is attached to this filing as **Exhibit B**. The proposed implementation plan provides that, for each proposed Reliability Standard, where approval by an applicable governmental authority is required, the standard shall become effective on the first day of the first calendar quarter that is three (3) months after the effective date of the applicable governmental authority's order approving the standard, or as otherwise provided for by the applicable governmental authority. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is three (3) months after the date the standard is adopted by the NERC Board of Trustees, or as otherwise provided for in that jurisdiction. The currently effective versions of the standards would be retired immediately prior to the effective date of the revised Reliability Standards. This implementation timeline reflects consideration that entities may need time to update their internal systems and documentation to reflect the new Reliability Standard version numbers.

Respectfully submitted,

/s/ Lauren A. Perotti

Lauren A. Perotti
Senior Counsel
Marisa Hecht
Counsel
North American Electric Reliability Corporation
1325 G Street, N.W., Suite 600
Washington, D.C. 20005
(202) 400-3000
(202) 644-8099 – facsimile
lauren.perotti@nerc.net

*Counsel for the North American Electric
Reliability Corporation*

February 27, 2020

EXHIBITS A-B and D-F

Exhibit C — Reliability Standards Criteria

Reliability Standards Criteria

The discussion below explains how the proposed Reliability Standards have met or exceeded the Reliability Standards criteria.

1. Proposed Reliability Standards must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve that goal.

The proposed Reliability Standards revise the currently effective versions to align the standards with registration changes submitted in 2015. In the proposed Reliability Standards, references to entities that are no longer registered by NERC are removed. Proposed Reliability Standard PRC-006-3 adds the Underfrequency Load Shedding (“UFLS”)-Only Distribution Provider as an applicable entity. In addition, revisions are proposed to ensure consistent use of the term Planning Coordinator across the body of NERC Reliability Standards. No substantive revisions are made to the underlying requirements.

2. Proposed Reliability Standards must be applicable only to users, owners, and operators of the bulk power system, and must be clear and unambiguous as to what is required and who is required to comply.

The proposed Reliability Standards are clear and unambiguous as to what is required and who is required to comply. The revisions reflected in the proposed standards would promote alignment and consistency across NERC Reliability Standards and the NERC registration criteria and would reduce the potential for confusion regarding which entities are responsible for compliance with the standards.

3. A proposed Reliability Standard must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.

The Violation Risk Factors (“VRFs”) and Violation Severity Levels (“VSLs”) for the proposed Reliability Standards are substantively unchanged from currently effective versions of

the Reliability Standards, reflecting only those revisions necessary to effectuate the proposed alignment revisions. They continue to comport with NERC and FERC guidelines related to their assignment. The assignment of the severity level for each VSL is consistent with the corresponding requirement and the VSLs should ensure uniformity and consistency in the determination of penalties. The VSLs do not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations. For these reasons, the proposed Reliability Standards include clear and understandable consequences.

4. A proposed Reliability Standard must identify clear and objective criteria or measures for compliance, so that it can be enforced in a consistent and non-preferential manner.

The proposed Reliability Standards contain measures that support each requirement by clearly identifying what is required and how the requirement will be enforced. These measures help provide clarity regarding how the requirements will be enforced and help ensure that the requirements will be enforced in a clear, consistent, and non-preferential manner and without prejudice to any party. The measures are substantively unchanged from currently enforceable versions of the Reliability Standards, reflecting only those revisions necessary to effectuate the proposed alignment revisions.

5. Proposed Reliability Standards should achieve a reliability goal effectively and efficiently, but do not necessarily have to reflect “best practices” without regard to implementation cost or historical regional infrastructure design.

The proposed Reliability Standards achieve their reliability goals effectively and efficiently in accordance with Order No. 672. The proposed Reliability Standards clarify which entities remain applicable to each standard following the registration changes previously in 2015. NERC does not propose any substantive revisions to the underlying standard requirements.

6. **Proposed Reliability Standards cannot be “lowest common denominator,” i.e., cannot reflect a compromise that does not adequately protect Bulk-Power System reliability. Proposed Reliability Standards can consider costs to implement for smaller entities, but not at consequences of less than excellence in operating system reliability.**

The proposed Reliability Standards do not reflect a “lowest common denominator” approach. The proposed Reliability Standards clarify which entities must comply with the standards following registration changes previously submitted in 2015. NERC does not propose any substantive revisions to the underlying standard requirements.

7. **Proposed Reliability Standards must be designed to apply throughout North America to the maximum extent achievable with a single Reliability Standard while not favoring one geographic area or regional model. It should take into account regional variations in the organization 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.**

The proposed Reliability Standards continue to apply consistently throughout North America and do not favor one geographic area or regional model. The proposed Reliability Standards clarify which entities must comply with the standards following registration changes previously submitted in 2015. NERC does not propose any substantive revisions to the underlying standard requirements.

8. **Proposed Reliability Standards should cause no undue negative effect on competition or restriction of the grid beyond any restriction necessary for reliability.**

The proposed Reliability Standards have no undue negative effect on competition and do not unreasonably restrict the available transmission capacity or limit the use of the BPS in a preferential manner. The proposed standards continue to require the same performance by each of the applicable entities, which have been aligned to reflect registration changes previously submitted in 2015.

9. The implementation time for the proposed Reliability Standard is reasonable.

The proposed effective date for the proposed Reliability Standards is just and reasonable and appropriately balances the urgency in the need to implement the standards against the reasonableness of the time allowed for those who must comply to develop necessary procedures, software, facilities, staffing, or other relevant capability. The proposed implementation plan provides that, for each proposed Reliability Standard, where approval by an applicable governmental authority is required, the standard shall become effective on the first day of the first calendar quarter that is three (3) months after the effective date of the applicable governmental authority's order approving the standard, or as otherwise provided for by the applicable governmental authority. Where approval by an applicable governmental authority is not required, the standard shall become effective on the first day of the first calendar quarter that is three (3) months after the date the standard is adopted by the NERC Board of Trustees, or as otherwise provided for in that jurisdiction. The currently effective versions of the standards would be retired immediately prior to the effective date of the revised Reliability Standards. This implementation timeline reflects consideration that entities may need time to update their internal systems and documentation to reflect the new Reliability Standard version numbers. The proposed implementation plan is attached as **Exhibit B** to this filing.

10. The Reliability Standard was developed in an open and fair manner and in accordance with the Reliability Standard development process.

The proposed Reliability Standards were developed in accordance with NERC's ANSI-accredited processes for developing and approving Reliability Standards. **Exhibit E** includes a summary of the Reliability Standard development proceedings, and details the processes followed to develop the proposed Reliability Standards. These processes included, among other things,

comment periods, pre-ballot review periods, and balloting periods. Additionally, all meetings of the standard drafting team were properly noticed and open to the public.

11. NERC must explain any balancing of vital public interests in the development of proposed Reliability Standards.

NERC has identified no competing public interests regarding the proposed Reliability Standards. No comments were received that indicated that one or more of the proposed Reliability Standards conflicts with other vital public interests.

12. Proposed Reliability Standards must consider any other appropriate factors.

No other negative factors relevant to whether the proposed Reliability Standards are just and reasonable were identified.