

January 12, 2021

**VIA ELECTRONIC FILING**

Michael Law  
President and Chief Executive Officer  
Alberta Electric System Operator  
2500, 330 - 5 Avenue SW  
Calgary, Alberta  
T2P 0L4

RE: *North American Electric Reliability Corporation*

Dear Mr. Law:

The North American Electric Reliability Corporation (“NERC”) hereby submits Notice of Filing of the North American Electric Reliability Corporation of Errata to Reliability Standard FAC-001-3. NERC requests, to the extent necessary, a waiver of any applicable filing requirements with respect to this filing.

NERC understands the AESO may adopt the proposed reliability standards subject to Alberta legislation, principally as established in the *Transmission Regulation* (“the T Reg.”). Briefly, it is NERC’s understanding that the T Reg. requires the following with regard to the adoption in Alberta of a NERC Reliability Standard:

1. The AESO must consult with those market participants that it considers are likely to be directly affected.
2. The AESO must forward the proposed reliability standards to the Alberta Utilities Commission for review, along with the AESO’s recommendation that the Commission approve or reject them.
3. The Commission must follow the recommendation of the AESO that the Commission approve or reject the proposed reliability standards unless an interested person satisfies the Commission that the AESO’s recommendation is “technically deficient” or “not in the public interest.”

Further, NERC has been advised by the AESO that the AESO practice with respect to the adoption of a NERC Reliability Standard includes a review of the NERC Reliability Standard for applicability to Alberta legislation and electric industry practice. NERC has been advised that, while the objective is to adhere as closely as possible to the requirements of the NERC Reliability Standard, each NERC Reliability Standard approved in Alberta (called an “Alberta reliability standard”) generally varies from the similar and related NERC Reliability Standard.

1325 G Street NW Suite 600  
Washington, DC 20005  
202-400-3000 | [www.nerc.com](http://www.nerc.com)

NERC requests the AESO consider the adoption of Errata to Reliability Standard FAC-001-3 as set forth in the filing in Alberta as an “Alberta reliability standard(s),” subject to the required procedures and legislation of Alberta.

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

Sincerely,

/s/ Lauren Perotti

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

**BEFORE THE  
ALBERTA ELECTRIC SYSTEM OPERATOR**

**NORTH AMERICAN ELECTRIC** )  
**RELIABILITY CORPORATION** )

**NOTICE OF FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY  
CORPORATION OF ERRATA TO RELIABILITY STANDARD FAC-001-3**

The North American Electric Reliability Corporation (“NERC”) hereby submits errata to Reliability Standard FAC-001-3 (Facility Interconnection Requirements).

**Exhibit A** consists of a clean version of the proposed Reliability Standard and **Exhibit B** shows the proposed redlined changes. These errata changes are just, reasonable, not unduly discriminatory, and in the public interest.

**I. Background**

On May 3, 2016, NERC submitted a filing of Reliability Standards BAL-005-1 (Balancing Authority Control) and FAC-001-3 (Facility Interconnection Requirements), included as Exhibits A and B to the filing, respectively.<sup>1</sup> NERC also provided notice of certain revised definitions of terms used in the NERC *Glossary of Terms used in Reliability Standards*, the associated implementation plans, violation risk factors and violation severity levels, and the retirement of certain Reliability Standards.

It has come to NERC’s attention that NERC inadvertently filed a draft version of the FAC-001-3 Reliability Standard as Exhibit B to its May 3, 2016 filing, instead of the final version that was approved by the NERC ballot body and adopted by the NERC Board of

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<sup>1</sup> *Notice of Filing of NERC of Proposed Reliability Standards BAL-005-1 and FAC-001-3* (May 3, 2016).

Trustees in February 2016.<sup>2</sup> The version filed as Exhibit B to NERC's May 3, 2016 filing did not reflect certain non-substantive revisions in Requirement R3 Part 3.3 and Requirement R4 Part 4.3 that were made prior to the final ballot for the standard. The final language for these Requirement Parts was accurately reflected in the retirement-by-retirement justification for the standard contained in the main body of NERC's filing.<sup>3</sup>

To promote consistency and clarity as to the mandatory and effective language, NERC hereby submits the NERC Board-adopted version of the FAC-001-3 Reliability Standard attached as **Exhibit A** to this filing. The differences between the two versions of the standard are noted in the following section.

## **II. Errata**

Prior to the final ballot for Reliability Standard FAC-001-3, the standard drafting team made certain clarifying revisions in Requirement R3 Part 3.3 and Requirement R4 Part 4.3, which were new subparts in Reliability Standard FAC-001-3. This language was part of the version that was ultimately approved by the ballot pool and adopted by the NERC Board of Trustees, and which is attached as **Exhibit A** to this filing.

As noted above, the language of the final version was accurately reflected in the main body of NERC's May 3, 2016 filing. The differences between the draft version attached as Exhibit B to NERC's May 3, 2016 filing and the final version attached to this filing are shown below:

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<sup>2</sup> See NERC Board of Trustees, February 11, 2016 Agenda Package, item 4a, available at <https://www.nerc.com/gov/bot/Agenda%20highlights%20and%20Mintues%202013/BOT%20-%20February%2011%202016%20Agenda%20Package.pdf>. See also Minutes of the NERC Board of Trustees February 11, 2016 Meeting, available at <https://www.nerc.com/gov/bot/Agenda%20highlights%20and%20Mintues%202013/BOT%20-%20February%2011%202016%20Minutes.pdf>.

<sup>3</sup> See May 3, 2016 Filing at 19-20. The final version was also included in Exhibit N, Summary of Development History and Complete Record of Development (item 74).

**R3.** Each Transmission Owner shall address the following items in its Facility interconnection requirements: *[Violation Risk Factor: Lower]*  
*[Time Horizon: Long-Term Planning]*

\*\*\*

**3.3.** Procedures for confirming with those responsible for the reliability of affected systems ~~of~~that new or materially modified ~~transmission~~ Facilities are within a Balancing Authority Area's metered boundaries.

**R4.** Each applicable Generator Owner shall address the following items in its Facility interconnection requirements: *[Violation Risk Factor: Lower]*  
*[Time Horizon: Long-Term Planning]*

\*\*\*

**4.3.** Procedures for confirming with those responsible for the reliability of affected systems ~~of~~that new or materially modified ~~generation~~ Facilities are within a Balancing Authority Area's metered boundaries.

As explained in the record of development filed with NERC's May 3, 2016 filing, the standard drafting team determined to remove before the final ballot the word "transmission" from draft Requirement R3.3, and the word "generation" from draft Requirement R4.4, to more clearly reflect the intent of the drafting team that a Transmission Owner or Generator Owner properly address procedures for confirming that those responsible for reliability of the applicable affected systems are within a Balancing Authority Area's metered boundaries.<sup>4</sup>

The attached version of the FAC-008-3 standard will promote consistency and clarity as to the mandatory and effective language, and is just, reasonable, not unduly discriminatory, and in the public interest.

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<sup>4</sup> May 3, 2016 Filing, Exhibit N at item 24 (pdf at 1342) (January 28, 2016 Consideration of Comments at 65).

### III. Notices and Communications

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

Lauren A. Perotti  
Senior 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

Howard Gugel  
Vice President, 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

Respectfully submitted,

/s/ Lauren A. Perotti

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

January 12, 2021

## **EXHIBITS**

**Exhibit A** Proposed Reliability Standard FAC-001-3 - clean

*As adopted by the NERC Board of Trustees*

**Exhibit B** Proposed Reliability Standard FAC-001-3 – redline

*showing changes to the version filed with the May 3, 2016 Filing*

## A. Introduction

1. **Title:** Facility Interconnection Requirements
2. **Number:** FAC-001-3
3. **Purpose:** To avoid adverse impacts on the reliability of the Bulk Electric System, Transmission Owners and applicable Generator Owners must document and make Facility interconnection requirements available so that entities seeking to interconnect will have the necessary information.
4. **Applicability:**
  - 4.1. **Functional Entities:**
    - 4.1.1 Transmission Owner
    - 4.1.2 Applicable Generator Owner
      - 4.1.2.1 Generator Owner with a fully executed Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to the Transmission system.
5. **Effective Date:** See Implementation Plan for FAC-001-3.

## B. Requirements and Measures

- R1.** Each Transmission Owner shall document Facility interconnection requirements, update them as needed, and make them available upon request. Each Transmission Owner's Facility interconnection requirements shall address interconnection requirements for: *[Violation Risk Factor: Lower] [Time Horizon: Long-term Planning]*
  - 1.1. generation Facilities;
  - 1.2. transmission Facilities; and
  - 1.3. end-user Facilities.
- M1.** Each Transmission Owner shall have evidence (such as dated, documented Facility interconnection requirements) that it met all requirements in Requirement R1.
- R2.** Each applicable Generator Owner shall document Facility interconnection requirements and make them available upon request within 45 calendar days of full execution of an Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to the Transmission system. *[Violation Risk Factor: Lower] [Time Horizon: Long-term Planning]*
- M2.** Each applicable Generator Owner shall have evidence (such as dated, documented Facility interconnection requirements) that it met all requirements in Requirement R2.

- R3.** Each Transmission Owner shall address the following items in its Facility interconnection requirements: *[Violation Risk Factor: Lower] [Time Horizon: Long-Term Planning]*
- 3.1.** Procedures for coordinated studies of new or materially modified existing interconnections and their impacts on affected system(s).
  - 3.2.** Procedures for notifying those responsible for the reliability of affected system(s) of new or materially modified existing interconnections.
  - 3.3.** Procedures for confirming with those responsible for the reliability of affected systems that new or materially modified Facilities are within a Balancing Authority Area’s metered boundaries.
- M3.** Each Transmission Owner shall have evidence (such as dated, documented Facility interconnection requirements addressing the procedures) that it met all requirements in Requirement R3.
- R4.** Each applicable Generator Owner shall address the following items in its Facility interconnection requirements: *[Violation Risk Factor: Lower] [Time Horizon: Long-Term Planning]*
- 4.1.** Procedures for coordinated studies of new interconnections and their impacts on affected system(s).
  - 4.2.** Procedures for notifying those responsible for the reliability of affected system(s) of new interconnections.
  - 4.3.** Procedures for confirming with those responsible for the reliability of affected systems that new or materially modified Facilities are within a Balancing Authority Area’s metered boundaries.
- M4.** Each applicable Generator Owner shall have evidence (such as dated, documented Facility interconnection requirements addressing the procedures) that it met all requirements in Requirement R4.

## **C. Compliance**

### **1. Compliance Monitoring Process**

#### **1.1. Compliance Enforcement Authority**

As defined in the NERC Rules of Procedure, “Compliance Enforcement Authority” (CEA) means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

#### **1.2. Evidence Retention**

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the CEA may ask an entity to provide other evidence to show that it was compliant for the full time period since the last audit.

The applicable Functional Entity shall keep data or evidence to show compliance as identified below unless directed by its CEA to retain specific evidence for a longer period of time as part of an investigation:

The responsible entities shall retain documentation as evidence for three years.

If a responsible entity is found non-compliant, it shall keep information related to the non-compliance until mitigation is complete and approved or for the time specified above, whichever is longer.

The CEA shall keep the last audit records and all requested and submitted subsequent audit records.

**1.3. Compliance Monitoring and Assessment Processes:**

Compliance Audit

Self-Certification

Spot Check

Compliance Investigation

Self-Reporting

Complaint

**1.4. Additional Compliance Information**

None

Table of Compliance Elements

R #	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Long-term Planning	Lower	N/A	<p>The Transmission Owner documented Facility interconnection requirements and updated them as needed, but failed to make them available upon request.</p> <p>OR</p> <p>The Transmission Owner documented Facility interconnection requirements and made them available upon request, but failed to update them as needed.</p> <p>OR</p> <p>The Transmission Owner documented Facility interconnection requirements, updated them as needed, and made them available upon request, but</p>	<p>The Transmission Owner documented Facility interconnection requirements, but failed to update them as needed and failed to make them available upon request.</p> <p>OR</p> <p>The Transmission Owner documented Facility interconnection requirements, updated them as needed, and made them available upon request, but failed to address interconnection requirements for two of the Facilities as specified in R1, Parts 1.1, 1.2, or 1.3.</p>	<p>The Transmission Owner did not document Facility interconnection requirements.</p>

**FAC-001-3 — Facility Interconnection Requirements**

				failed to address interconnection requirements for one of the Facilities as specified in R1, Parts 1.1, 1.2, or 1.3.		
<b>R2</b>	Long-term Planning	Lower	The applicable Generator Owner failed to document Facility interconnection requirements and make them available upon request until more than 45 calendar days but less than or equal to 60 calendar days after full execution of an Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the Transmission system.	The applicable Generator Owner failed to document Facility interconnection requirements and make them available upon request until more than 60 calendar days but less than or equal to 70 calendar days after full execution of an Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the Transmission system.	The applicable Generator Owner failed to document Facility interconnection requirements and make them available upon request until more than 70 calendar days but less than or equal to 80 calendar days after full execution of an Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the Transmission system.	The applicable Generator Owner failed to document Facility interconnection requirements and make them available upon request until more than 80 calendar days after full execution of an Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner’s existing Facility that is used to interconnect to the Transmission system.

**FAC-001-3 — Facility Interconnection Requirements**

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<b>R3</b>	Long-term Planning	Lower	N/A	The Transmission Owner failed to address one part of Requirement R3 Part 3.1 through Part 3.3.	The Transmission Owner failed to address two parts of Requirement R3 Part 3.1 through Part 3.3.	The Transmission Owner failed to address Requirement R3 Part 3.1 through Part 3.3.
<b>R4</b>	Long-term Planning	Lower	N/A	The Generator Owner failed to address one part of Requirement R4 Part 4.1 through Part 4.3.	The Generator Owner failed to address two parts of Requirement R4 Part 4.1 through Part 4.3.	The Generator Owner failed to address Requirement R4 Part 4.1 through Part 4.3.

**D. Regional Variances**

None.

**E. Interpretations**

None.

**F. Associated Documents**

None.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
1		Added requirements for Generator Owner and brought overall standard format up to date.	Revision under Project 2010-07
1	February 9, 2012	Adopted by the Board of Trustees	
1	September 19, 2013	A FERC order was issued on September 19, 2013, approving FAC-001-1. This standard became enforceable on November 25, 2013 for Transmission Owners. For Generator Owners, the standard becomes enforceable on January 1, 2015.	
2		Revisions to implement the recommendations of the FAC Five-Year Review Team.	Revision under Project 2010-02
2	August 14, 2014	Adopted by the Board of Trustees	
2	November 6, 2014	FERC letter order issued approving FAC-001-2.	
3	February 11, 2016	Adopted by the Board of Trustees	Moved BAL-005-0.2b Requirement R1 into FAC-001-3 Requirements R3 and R4
3	September 20, 2017	FERC Order No. 836 issued approving FAC-001-3	
3	TBD	Errata	

### Guidelines and Technical Basis

Entities should have documentation to support the technical rationale for determining whether an existing interconnection was “materially modified.” Recognizing that what constitutes a “material modification” will vary from entity to entity, the intent is for this determination to be based on engineering judgment.

#### Requirement R3:

Originally the Parts of R3, with the exception of the first two bullets, which were added by the Project 2010-02 drafting team, this list has been moved to the Guidelines and Technical Basis section to provide entities with the flexibility to determine the Facility interconnection requirements that are technically appropriate for their respective Facilities. Including them as Parts of R3 was deemed too prescriptive, as frequently some items in the list do not apply to all applicable entities – and some applicable entities will have requirements that are not included in this list.

Each Transmission Owner and applicable Generator Owner should consider the following items in the development of Facility interconnection requirements:

- Procedures for requesting a new Facility interconnection or material modification to an existing interconnection
- Data required to properly study the interconnection
- Voltage level and MW and MVAR capacity or demand at the point of interconnection
- Breaker duty and surge protection
- System protection and coordination
- Metering and telecommunications
- Grounding and safety issues
- Insulation and insulation coordination
- Voltage, Reactive Power (including specifications for minimum static and dynamic reactive power requirements), and power factor control
- Power quality impacts
- Equipment ratings
- Synchronizing of Facilities
- Maintenance coordination
- Operational issues (abnormal frequency and voltages)
- Inspection requirements for new or materially modified existing interconnections
- Communications and procedures during normal and emergency operating conditions

### Rationale

During development of this standard, text boxes were embedded within the standard to explain the rationale for various parts of the standard. Upon Board approval, the text from the rationale boxes will be moved to this section.

**Rationale for Requirement R3.3:** Consistent with the Functional Model, there cannot be an assumption that the entity owning the transmission will be the same entity providing the BA function. It is the responsibility of the party interconnecting to make appropriate arrangements with a Balancing Authority to ensure its Facilities are within the BA's metered boundaries, which also serves to facilitate the process of the coordination between the two entities that will be required under numerous other standards upon the start of operation. Under 3.3, the Transmission Owner is responsible for confirming that the party interconnecting has made appropriate provisions with a Balancing Authority to operate within its metered boundaries.

**Rationale for Requirement R4.3:** Consistent with the Functional Model, there cannot be an assumption that the entity owning the generation will be the same entity providing the BA function. It is the responsibility of the party interconnecting to make appropriate arrangements with a Balancing Authority to ensure its Facilities are within the BA's metered boundaries, which also serves to facilitate the process of the coordination between the two entities that will be required under numerous other standards upon the start of operation. Under 4.3, the Generator Owner is responsible for confirming that the party interconnecting has made appropriate provisions with a Balancing Authority to operate within its metered boundaries.

## A. Introduction

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4. **Applicability:**
  - 4.1. **Functional Entities:**
    - 4.1.1 Transmission Owner
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      - 4.1.2.1 Generator Owner with a fully executed Agreement to conduct a study on the reliability impact of interconnecting a third party Facility to the Generator Owner's existing Facility that is used to interconnect to the Transmission system.
5. **Effective Date:** See Implementation Plan for FAC-001-3.

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- M4.** Each applicable Generator Owner shall have evidence (such as dated, documented Facility interconnection requirements addressing the procedures) that it met all requirements in Requirement R4.

## C. Compliance

### 1. Compliance Monitoring Process

#### 1.1. Compliance Enforcement Authority

As defined in the NERC Rules of Procedure, “Compliance Enforcement Authority” (CEA) means NERC or the Regional Entity in their respective roles of monitoring and enforcing compliance with the NERC Reliability Standards.

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The CEA shall keep the last audit records and all requested and submitted subsequent audit records.

**1.3. Compliance Monitoring and Assessment Processes:**

Compliance Audit

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Complaint

**1.4. Additional Compliance Information**

None

Table of Compliance Elements

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**FAC-001-3 — Facility Interconnection Requirements**

				failed to address interconnection requirements for one of the Facilities as specified in R1, Parts 1.1, 1.2, or 1.3.		
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**FAC-001-3 — Facility Interconnection Requirements**

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<b>R4</b>	Long-term Planning	Lower	N/A	The Generator Owner failed to address one part of Requirement R4 Part 4.1 through Part 4.3.	The Generator Owner failed to address two parts of Requirement R4 Part 4.1 through Part 4.3.	The Generator Owner failed to address Requirement R4 Part 4.1 through Part 4.3.

**D. Regional Variances**

None.

**E. Interpretations**

None.

**F. Associated Documents**

None.

Version History

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<u>3</u>	<u>TBD</u>	<u>Errata</u>	

### Guidelines and Technical Basis

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### Rationale

During development of this standard, text boxes were embedded within the standard to explain the rationale for various parts of the standard. Upon Board approval, the text from the rationale boxes will be moved to this section.

**Rationale for Requirement R3.3:** Consistent with the Functional Model, there cannot be an assumption that the entity owning the transmission will be the same entity providing the BA function. It is the responsibility of the party interconnecting to make appropriate arrangements with a Balancing Authority to ensure its Facilities are within the BA's metered boundaries, which also serves to facilitate the process of the coordination between the two entities that will be required under numerous other standards upon the start of operation. Under 3.3, the Transmission Owner is responsible for confirming that the party interconnecting has made appropriate provisions with a Balancing Authority to operate within its metered boundaries.

**Rationale for Requirement R4.3:** Consistent with the Functional Model, there cannot be an assumption that the entity owning the generation will be the same entity providing the BA function. It is the responsibility of the party interconnecting to make appropriate arrangements with a Balancing Authority to ensure its Facilities are within the BA's metered boundaries, which also serves to facilitate the process of the coordination between the two entities that will be required under numerous other standards upon the start of operation. Under 4.3, the Generator Owner is responsible for confirming that the party interconnecting has made appropriate provisions with a Balancing Authority to operate within its metered boundaries.