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**BEFORE THE  
ALBERTA ELECTRIC SYSTEM OPERATOR**

**NORTH AMERICAN ELECTRIC            )  
RELIABILITY CORPORATION        )**

**NOTICE OF FILING OF THE  
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION  
OF PROPOSED RELIABILITY STANDARD MOD-028-2 – AREA  
INTERCHANGE METHODOLOGY**

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NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION  
OF PROPOSED RELIABILITY STANDARD MOD-028-2 – AREA  
INTERCHANGE METHODOLOGY**

The North American Electric Reliability Corporation (“NERC”) hereby provides notice of proposed standard MOD-028-2 as approved by the NERC Board of Trustees on February 9, 2012. The proposed Reliability Standard provides clarification to the currently effective MOD-028-1 standard on the timing and frequency of Total Transfer Capability (“TTC”) calculations needed for Available Transfer Capability (“ATC”) calculations.

By this notice, NERC is submitting:

- the proposed Reliability Standard which is included in **Exhibit B**, effective on the first day of the first calendar quarter after applicable regulatory approval or where no regulatory approval is required, on the first day of the first calendar quarter after Board approval.
- the implementation plan for the proposed Reliability Standard which is included in **Exhibit C**;
- the retirement of Reliability Standard, effective midnight immediately prior to the first day of the first calendar quarter after applicable regulatory approval or where no regulatory approval is required, on the first day of the first calendar quarter after Board approval.

NERC filed this proposed standard with the Federal Energy Regulatory Commission (“FERC”), and is also filing this standard with the other applicable governmental authorities in Canada.

**I. EXECUTIVE SUMMARY**

The proposed Reliability Standard represents an improvement over the currently-effective Reliability Standard because it clarifies the timing and frequency of TTC calculations needed for ATC calculations. The MOD-028-1 standard originally referred to the current-day and next-day TTC values as “on-peak and off-peak intra-day and next day.” In order to clear up a misinterpretation that this required specific on-peak and off-peak load forecasts, Requirement R3 of the MOD-028-1 existing Reliability Standard was modified to clarify language regarding load forecasting, to indicate that for days two through 31, a daily load forecast is required (identical to the current standard); for months two through 13, a monthly load forecast is required (identical to the current standard); and for current-day and next-day, entities may use either a daily or hourly load forecast (the language being clarified). The new language clarifies and is consistent with the intent of the original requirement language, and does not materially change the standard.

## **II. NOTICES AND COMMUNICATIONS**

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

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## **III. BACKGROUND**

### **a. NERC Reliability Standards Development Procedure**

NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of the NERC Rules of Procedure and the NERC Standard Processes Manual, which is Appendix 3A to the NERC Rules of Procedure. NERC's proposed 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 certain 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 bulk power system. NERC considers the comments of all stakeholders, and a vote of stakeholders and the NERC Board of Trustees is required to approve a Reliability

Standard before the Reliability Standard is submitted to the applicable governmental authorities.

**IV. JUSTIFICATION OF THE PROPOSED RELIABILITY STANDARD MOD-028-2**

**a. Basis and Purpose of Reliability Standard — MOD-028-2**

The primary purpose of the proposed standard is to increase consistency and reliability in the development and documentation of Transfer Capability calculations for short-term use performed by entities using the Area Interchange Methodology to support analysis and system operations.

The currently effective MOD-028-1 Reliability Standard was filed on December 17, 2009. The Modeling, Data, and Analysis Reliability Standards require certain users, owners, and operators of the bulk power system to develop consistent methodologies for the calculation of ATC or AFC. Three currently-effective NERC Reliability Standards – MOD-028-1, MOD-029-1, and MOD-030-2—address three different methodologies for calculating ATC, all of which produce predictable, sufficiently accurate, consistent, equivalent, and replicable results. MOD-028-1 describes the area interchange methodology for determining ATC. This Reliability Standard only applies to Transmission Operators and Transmission Service Providers that elect to implement this particular methodology as part of their compliance with MOD-001-1a, Requirement R1, which requires each Transmission Operator to calculate ATC or AFC for each ATC Path for those Facilities within its Transmission operating area using one of the three methodologies referenced above.

In May 2011, NERC received a request for interpretation from Florida Power & Light (FPL) of MOD-028-1, Requirement R3.1. FPL requested clarification of the

timing and frequency TTC calculations needed for ATC calculations. At its July 2011 meeting, the NERC Standards Committee determined that the request could not be addressed through an interpretation, and that a modification to the standard may be necessary. The Standards Committee identified a way of using the existing standards development process to make a clarifying change to the standard in roughly the same amount of time required to develop and approve an interpretation. That is, the existing standards development process could be used, but the scope of standards development would be limited to a very specific change that was expected to meet with stakeholder consensus without the need for significant debate. In July 2011, the NERC Standards Committee approved, with FPL's consent, a recommendation to address FPL's request for interpretation through a minor revision to the MOD-028-1 Reliability Standard.

A standard drafting team was assembled for this project and directed by the Standards Committee to submit both a Standards Authorization Request (SAR) and proposed revisions to MOD-028-1 concurrently, addressing the issues raised in the request for interpretation. Because the revisions are narrowly focused on addressing the clarification requested by FPL, the Standards Committee approved waiving the initial 30-day formal comment period and directed that the SAR and proposed revisions to the standard be posted for a 45-day parallel comment period and ballot.

#### **b. Improvements to Standard in this Revision**

The MOD-028-1 standard originally referred to the current-day and next-day TTC values as "on-peak and off-peak intra-day and next day." However, this language was interpreted as requiring specific on-peak and off-peak load forecasts. In fact, the intent was to specify that for TTC used in current day and next-day ATC calculations, the load

forecast used should be consistent with the period being calculated (*e.g.*, intra-day ATC calculations should not be based on a monthly load forecast).

To address these concerns, Requirement R3 of the MOD-028-1 standard is proposed to be modified to clarify language regarding load forecasting, to indicate that for days two through 31, a daily load forecast is required (identical to the current standard); for months two through 13, a monthly load forecast is required (identical to the current standard); and for current-day and next-day, entities may use either a daily or hourly load forecast (the language being clarified). The new language clarifies and is consistent with the intent of the original requirement language, and does not materially change the standard.

The VRFs for the MOD-028-2 standard are not proposed to be modified in this filing. However, one minor errata correction is proposed to the VSLs for Requirement R4 correcting an inadvertent reference to Requirement R5. Other administrative modifications are proposed to the compliance elements of the standard to bring it into conformance with current guidelines.

### **c. Enforceability of the Proposed Reliability Standard**

The proposed Reliability Standard contains measures that support each standard requirement by clearly identifying what is required and how the requirement will be enforced. The VSLs also provide further guidance on the way NERC will enforce the requirements of the standard.

#### **i. Violation Risk Factors and Violation Severity Levels**

For a list of the existing VRFs and VSLs, please see the MOD-028-2 standard in **Exhibit B**.



## V. SUMMARY OF THE RELIABILITY STANDARD DEVELOPMENT PROCEEDINGS

The development record for the proposed MOD-028-2 Reliability Standard is summarized below. **Exhibit D** contains the Consideration of Comments Reports created during the development standard. **Exhibit E** contains the record of development for the proposed standard.

### a. SAR Development

Project 2011-INT-01 was initiated on May 13, 2011, when FPL submitted a request for interpretation of Requirement R3.1 asking for clarification of the required performance and the conditions under which the performance of that requirement is necessary. In July 2011, the NERC Standards Committee approved, with FPL's consent, the initiation of a standard develop project to address FPL's request for interpretation through a minor revision to the MOD-028-1 Reliability Standard.

### b. Overview of the Standard Drafting Team

For this project, the SDT consisted of five industry experts with approximately 60 years collective experience. Each individual is considered to be an expert in his field. Members of this standard drafting team provided a diversity of experience, ranging across North America, including both the continental United States and Canada. A detailed set of biographical information for each of the team members is included along with the SDT roster in **Exhibit F**.

### c. The First Posting and Initial Ballot

The first draft of the proposed MOD-028-2 standard was posted from October 2, 2011 to November 16, 2011 for a concurrent comment and ballot period. NERC received

9 sets of comments including comments from 51 different individuals from approximately 43 companies representing all 10 industry segments. A majority of comments indicated that the changes made to the standard resolved the questions raised in the request for interpretation. Several commenters expressed concern over edits made to the compliance section of the standard. However, these changes are intended only to provide guidance on compliance with the standard and will not become mandatory and enforceable when the proposed MOD-028-2 Reliability Standard is approved. Several other comments questioned minor edits to the data retention section of the standard. The paragraph that was added to the Data Retention section of the standard is intended to notify entities of this responsibility and is not specific to MOD-028-2; this paragraph is being added to all standards as they are revised.

The ballot period took place between November 7, 2011 and November 16, 2011. The standard received a quorum of 88.05% and an affirmative vote of 85.53%.

**d. Recirculation Ballot**

A recirculation ballot was held from December 12, 2011 to December 22, 2011. The standard received a 90.10% quorum and a 92.49% approval.

**e. Board of Trustees Approval**

The final draft of the proposed Reliability Standard was presented to the NERC Board of Trustees for approval on February 9, 2012. The Board of Trustees approved the proposed Reliability Standard, and NERC staff was authorized to file with applicable regulatory authorities.

## VI. CONCLUSION

For the reasons set forth above, the North American Electric Reliability Corporation requests that the AESO take the steps necessary to adopt proposed Reliability Standard MOD-028-2 – Area Interchange Methodology.

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Respectfully submitted,

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## **EXHIBIT A**

### **Reliability Standards Criteria**

The discussion below explains how the proposed Reliability Standard has met or exceeded the reliability standards criteria:

**1. Proposed Reliability Standard is designed to achieve a specified reliability goal and must contain a technically sound means to achieve that goal.**

Proposed Reliability Standard MOD-028-2 is one of a suite of Reliability Standards (MOD-001-1, MOD-028-1, MOD-029-1 and MOD-030-1) that are designed to work together to ensure that Transmission Service Providers and Transmission Operators maintain awareness of available transmission system capability and future flows on their own systems as well as those of their neighbors. Historically, differences in implementations of ATC methodologies and a lack of coordination between Transmission Service Providers has resulted in cases where systems have been oversold, resulting in potential or actual System Operating Limit (SOL) and Interconnection Reliability Operating Limit (IROL) violations. This standard works to ensure that the occurrence of such scenarios is minimized by specifying the parameters of the Area Interchange Methodology such that ATC values closely match actual remaining system capability. The proposed MOD-028-2 standard adds clarity to one requirement of the currently-effective MOD-028-1 standard by ensuring that for TTCs used in current and next-day ATC calculations, the load forecast used is consistent with the period being calculated (*e.g.*, intra-day ATC calculations should not be based on a monthly load forecast).

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

The MOD-028-2 Reliability Standard is applicable only to users, owners and operators of the bulk power system, and not others. The proposed standard applies to Transmission Operators and Transmission Service Providers, and the action required by the proposed standard is expressly stated.

**3. Proposed Reliability Standard includes clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.**

The VRFs and VSLs for MOD-028-2 were not altered during this revision of the standard from those assigned to MOD-028-1. One minor errata change was made to the VSL of Requirement R4 to correct an inadvertent reference to Requirement R5. For a list of the existing VRFs and VSLs, please see **Exhibit B**.

**4. Proposed Reliability Standard identifies clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner.**

Each Requirement in the proposed MOD-028-2 Reliability Standard is supported by a measure that clearly identifies what is required and how the requirement will be enforced. These thirteen measures will ensure the Requirements are clearly administered for enforcement in a consistent manner and without prejudice to any party.

Administrative modifications were made to the compliance elements of the proposed MOD-028-2 standard to bring it into conformance with current guidelines, but no substantive changes were made to these compliance elements.

**5. Proposed Reliability Standard achieves a reliability goal effectively and efficiently — but does not reflect “best practices” without regard to implementation cost or historical regional infrastructure design.**

The proposed Reliability Standard helps the industry achieve the stated reliability goal effectively and efficiently. While some entities may be required to modify their current implementation approach to comply with the standard, NERC does not believe

that implementation costs will be unduly burdensome when considering the increase in consistency and transparency expected through the implementation of the Area Interchange Methodology as presented.

**6. Proposed Reliability Standard is not “lowest common denominator,” *i.e.*, does not 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 MOD-028-2 Reliability Standard does not reflect a “lowest common denominator” approach. The proposed standard represents an improvement over version 1 of the standard because it specifies that for TTCs used in current day and next-day ATC calculations, the load forecast used should be consistent with the period being calculated (*e.g.*, intra-day ATC calculations should not be based on a monthly load forecast).

The MOD-028-2 Reliability Standard will apply equally to all applicable entities in a consistent manner. While the proposed standard likely will result in some applicable entities being required to modify their systems to implement the methodology described within this standard, the standard does not impose requirements that are completely new or unfamiliar to the industry.

**7. Proposed Reliability Standard is 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.**

NERC has developed the MOD-028-2 Reliability Standard to apply to all of North America.

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

The proposed MOD-028-2 Reliability Standard has no undue negative effect on competition. It also does not unreasonably restrict ATC on the bulk power system beyond any restriction necessary for reliability and does not limit use of the bulk power system in an unduly preferential manner. It does not create an undue advantage for one competitor over another. The focus of the proposed Reliability Standard is to address only the reliability aspects of ATC and not to address the commercial aspects of available transmission system capability with the exception of ensuring commercial transmission availability closely matches actual remaining transmission capability.

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

The proposed effective date for the standard is just and reasonable and appropriately balances the urgency in the need to implement the standard against the reasonableness of the time allowed for those who must comply to develop necessary procedures, software, facilities, staffing or other relevant capability.

This will allow applicable entities adequate time to ensure compliance with the requirements. The proposed effective date is explained in the proposed Implementation Plan, attached as **Exhibit C**.

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

The proposed Reliability Standard was developed in accordance with NERC's ANSI- accredited processes for developing and approving Reliability Standards (for a more thorough review, please see the complete development history included as **Exhibit E**).

These processes included, among other things, multiple comment periods, pre-ballot review periods, and balloting periods. Additionally, all drafting team meetings were properly noticed and open to the public. The initial and recirculation ballots both achieved a quorum and exceeded the required ballot pool approval levels.

**11. NERC explains any balancing of vital public interests in the development of proposed Reliability Standards.**

NERC does not believe there are competing public interests with respect to the request for approval of this proposed standard.

**12. Proposed Reliability Standard considers any other appropriate factors.**

The proposed MOD-028-2 Reliability Standard satisfies the general reliability standards criteria. NERC is not proposing any additional factors for consideration to support adoption of the proposed standard.



**EXHIBITS B -F**

(Available on the NERC Website at  
[http://www.nerc.com/fileUploads/File/Filings/Attachments\\_MOD-028-2\\_Filing](http://www.nerc.com/fileUploads/File/Filings/Attachments_MOD-028-2_Filing))