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**BEFORE THE
NATIONAL ENERGY BOARD**

**NORTH AMERICAN ELECTRIC)
RELIABILITY CORPORATION)**

**NOTICE OF FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION
OF PROPOSED RELIABILITY STANDARD TOP-006-3 – MONITORING
SYSTEM CONDITIONS**

The North American Electric Reliability Corporation (“NERC”) hereby provides notice of proposed Reliability Standard TOP-006-3 which was approved by the NERC Board of Trustees on November 7, 2012. The proposed changes are submitted in accordance with Section 300 and Appendix 3A of the NERC Rules of Procedure.¹ The proposed TOP-006-3 Reliability Standard delineates the respective monitoring roles of Reliability Coordinators, Transmission Operators and Balancing Authorities with respect to critical reliability parameters.

By this filing, NERC is providing notice of the following:

- the proposed TOP-006-3 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;

¹ 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 satisfies 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 proposed Reliability Standard before the Reliability Standard is submitted to the applicable governmental authorities for approval.

- the implementation plan for the proposed TOP-006-3 Reliability Standard which is included in **Exhibit C**; and,
- the retirement of the currently-effective TOP-006-2, 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.

I. EXECUTIVE SUMMARY

The revisions in the proposed TOP-006-3 Reliability Standard are limited and targeted to address the respective monitoring role and notification obligation of Reliability Coordinators, Balancing Authorities and Transmission Operators. Specifically, the proposed Reliability Standard revises a sub-requirement (“Requirement R1.2”) and a requirement (“Requirement R3”), and also creates a new sub-requirement (“Requirement R1.3”) as described below.

The proposed revisions to TOP-006-3 modify the currently-effective TOP-006-2 Requirement R1.2 and create a new Requirement R1.3 to clarify that Transmission Operators are responsible for monitoring and reporting available transmission resources and that Balancing Authorities are responsible for monitoring and reporting available generation resources. As revised, the proposed requirements are consistent with the roles and responsibilities of registered entities as set forth in NERC Reliability Functional Model Version 5.² The proposed TOP-006-3 Reliability Standard also revises Requirement R3 of the currently-effective TOP-006-2 to confirm that Reliability Coordinators, Transmission Operators and Balancing Authorities are required to supply their operating personnel with appropriate technical information concerning protective

² The NERC Reliability Functional Model is available at:
http://www.nerc.com/files/Functional_Model_V5_Final_2009Dec1.pdf.

relays located within their respective areas. This language is consistent with the intent of the original requirement language and within the scope of the Rapid Revision Procedure. Conforming changes were made to the standard consistent with the changes described above.

II. NOTICES AND COMMUNICATIONS

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

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III. BACKGROUND ON REGULATORY FRAMEWORK

a. NERC Reliability Standards Development Procedure

NERC develops Reliability Standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards Development Procedure*, which is incorporated into the Rules of Procedure as Appendix 3A. 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 satisfies 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 its submission to the applicable governmental authorities.

The proposed Reliability Standard set out in **Exhibit B** has been developed and approved by industry stakeholders using NERC's *Reliability Standards Development Procedure*. They were approved by the NERC Board of Trustees on November 7, 2012.

IV. JUSTIFICATION OF THE PROPOSED RELIABILITY STANDARD TOP-006-3

a. Basis and Purpose of Proposed Reliability Standard — TOP-006-3

On January 20, 2010, NERC received a request for interpretation from Florida Municipal Power Pool (“FMPP”) regarding currently-effective TOP-006-2, Requirements R1.2 and R3.³ With respect to Requirement R1.2, FMPP requested that NERC explain whether a Balancing Authority is only responsible for reporting generation resources available for use and whether a Transmission Operator is only responsible for reporting transmission resources available for use. With respect to Requirement R3, FMPP requested that NERC examine whether Reliability Coordinators, Transmission Operators and Balancing Authorities must only provide appropriate technical information concerning protective relays for which that entity is responsible. The Standards Drafting Team (“SDT”) met from January 31, 2012 to February 1, 2012 to review FMPP’s request

³ The currently effective TOP-006-2 Reliability Standard was filed on January 21, 2010. The purpose of TOP-006-2 is to ensure that critical reliability parameters are monitored in real-time. The standard applies to Transmission Operators, Balancing Authorities, Generator Operators and Reliability Coordinators.

for interpretation of TOP-006-2 and decided that this request could appropriately be handled under the Rapid Revision Procedure.

The Rapid Revision Procedure was developed by the Standards Committee Process Subcommittee to formalize a process for developing limited and narrowly defined revisions to a Reliability Standard. The Rapid Revision Procedure may be used if the following conditions are met:

- (i) the requirement(s) or other component(s) of an approved Reliability Standard is (are) determined to be unclear;
- (ii) the lack of clarity or an incorrect interpretation could result in incorrect or inconsistent implementation of the requirement(s);
- (iii) a determination is made that an interpretation is not possible without revision of the Reliability Standard language;
- (iv) the revision to the Reliability Standard that would resolve the lack of clarify is narrow in scope; and
- (v) the proposal is to revise a Reliability Standard whose scope is judged to be simple and straight-forward.

The primary purpose of the proposed TOP-006-3 Reliability Standard is to delineate the respective monitoring and reporting roles of Reliability Coordinators, Transmission Operators and Balancing Authorities with respect to critical reliability parameters in response to FMPP's request for interpretation. Through this proposed standard, NERC splits the reporting responsibilities of Balancing Authorities and Transmission Operators into separate requirements rather than having a single requirement for both functions as is the case in the currently-effective TOP-006-2.

NERC also defines the scope of information that Reliability Coordinators, Transmission Operators and Balancing Authorities must provide their operating personnel.

The SDT solicited comments from various members of industry and made specific language changes to the currently-effective standard as discussed below.

b. Improvements to Reliability Standard in this Revision

Requirement R1.2

As currently written, Requirement R1.2 of currently-effective TOP-006-2 could be interpreted as duplicating efforts to monitor and report the availability of generation and transmission resources. It specifically requires both Transmission Operators and Balancing Authorities to inform Reliability Coordinators and other affected Transmission Operators and Balancing Authorities of all transmission and generation resources available for use. To address these concerns, Requirement R1.2 was amended to limit a Transmission Operator's monitoring and notification obligations to transmission resources available for use. Requirement R1.3 was added to limit a Balancing Authority's monitoring and notification obligations to generation resources available for use.

The SDT considered and rejected a proposal by commenters to limit reporting to adjacent Transmission Operators rather than all affected Transmission Operators as required in the currently-effective TOP-006-2, Requirement R1.2. Limiting the reporting obligation to "adjacent" Transmission Operators would force potentially unneeded and unwanted information on "adjacent" Transmission Operators if they are unaffected by a change in the available transmission resources.

The proposed, new Requirement R1.3 only requires Balancing Authorities to inform Reliability Coordinators of all generation resources available for use. They are not required to report the availability of generation resources to Transmission Operators because Transmission Operators already receive this information from Generator Operators pursuant to currently effective Requirement R1.1.

By defining the reporting channels from Transmission Operators and Balancing Authorities to Reliability Coordinators, NERC ensures that Reliability Coordinators receive necessary information in advance, as part of their operating tools, processes and procedures, to prevent and mitigate emergency operating situations in real and next day operations. The Reliability Coordinator is responsible for maintaining the real-time operating reliability of the Bulk Electric System within a Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide-area view. Its scope includes both transmission and balancing operations, and it has the authority to direct other functional entities to take certain actions to ensure that its Reliability Coordinator Area operates reliably.

Requirement R3

While the currently-effective Requirement R3 requires Reliability Coordinators, Transmission Operators and Balancing Authorities to provide appropriate technical information concerning protective relays to their operating personnel, it does not impose express geographical boundaries on the scope of this obligation. As a result, the revised Requirement R3 specifies that the relevant protective relays are those within these entities' respective Reliability Coordinator Area, Transmission Operator Area or Balancing Authority Area.

Several commenters requested changes that are beyond the scope of the Rapid Revision Procedure. Some commenters argued that Requirement R3 should be eliminated because its language is duplicated in Reliability Standards PRC-001-1 and -2, R1 which provide that “Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area.” Alternatively, they suggested that Requirement R3 be rewritten to only apply to Reliability Coordinators. Other commenters requested clarification of the scope of the phrases “appropriate technical information” and “operating personnel.” Specifically, they questioned whether “appropriate technical information” was intended to describe the purpose and functions of protective relays or the internal workings of relays. They also questioned whether “operating personnel” included System Operators, plant operators, field personnel and others. Adopting any of these proposed changes would require NERC to make changes outside of the existing language of TOP-006-2; therefore, NERC did not address these comments.

c. Enforceability of the Proposed Reliability Standard

The proposed Reliability Standard contains measures that support each requirement by identifying what is required and how the requirement will be enforced. The violation risk factors (“VRFs”) and violation severity levels (“VSLs”) also provide further guidance on the way NERC will enforce the requirements of the standard.

i. Violation Risk Factors

NERC has proposed Medium VRFs for proposed TOP-006-3, Requirements R1.2, R1.3 and R3. A failure to provide information about transmission resources, generation resources or protective relays could directly and adversely affect the electrical state or

capability of the Bulk Electric System, or the ability to effectively monitor, control or restore the Bulk Electric System. A Medium VRF for each of these requirements is justified because these three Requirements serve one objective – to ensure that critical reliability parameters are monitored in real-time.

ii. Violation Severity Levels

The proposed VSLs for Requirement R1.3 meet NERC’s VSL guidelines. To clarify the respective obligations of Transmission Operators and Balancing Authorities, the proposed changes bifurcate the currently effective TOP-006-2, Requirement R1.2 into a revised Requirement R1.2 and a new Requirement R1.3 without changing the substance of the requirements. Therefore, the proposed binary VSL for new Requirement R1.3 is appropriate. The proposed VSL satisfies the following guidelines:

- (i) It does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed;
- (ii) It does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations;
- (iii) It uses the same terminology as used in the associated requirement and is consistent with the requirement; and
- (iv) It is based on a single violation and not cumulative violations.

The VSLs for all Requirements in TOP-006-3 except the new Requirement R1.3 remain unchanged in this proposed version 3 of the Reliability Standard.

For a list of the existing VRF and VSLs, please see the TOP-006-3 standard in **Exhibit B**. For analysis of the VRFs and VSLs for Requirement R1.3, please see **Exhibit G**.

V. SUMMARY OF THE RELIABILITY STANDARD DEVELOPMENT PROCEEDINGS

The development record for the proposed TOP-006-3 Reliability Standard is summarized below. **Exhibit D** contains the Consideration of Comments Reports created during the development stage. **Exhibit E** contains the record of development for the proposed standard.

a. Standards Authorization Request Development

Project 2010-INT-01 was initiated on May 13, 2011, when FMPP submitted a request for interpretation of Requirements R1.2 and R3 asking NERC to delineate the respective monitoring roles of Transmission Operators and Balancing Authorities with respect to critical reliability parameters. The SDT met from January 31, 2012 to February 1, 2012 to review FMPP's request for interpretation for TOP-006-2 and decided that this request could appropriately be handled under the Rapid Revision Procedure and the NERC Standards Committee was advised of this decision.

b. Overview of the Standard Drafting Team

The technical expertise of the ERO is derived from the SDT. For this project, the SDT consisted of six industry experts with approximately 200 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.

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 TOP-006-3 standard was posted from June 14, 2012 to July 30, 2012. NERC received 32 sets of comments including comments from 143 different individuals from approximately 84 companies representing all 10 industry segments. A number of commenters expressed concern about redundancies within the proposed Reliability Standard which were addressed in the new Requirement R1.3. Other commenters discussed redundancies with other standards and requested elimination of two CANs which NERC did not address because those requested changes were beyond the scope provided to the Standards Drafting Team under the Rapid Revision Procedure.

The ballot period took place between July 20, 2012 and July 30, 2012. The standard received a quorum of 80.39% and an affirmative vote of 79.28%.

A non-binding poll of the VRF and VSL for Requirement R1.3 was conducted from July 20, 2012 through July 30, 2012, with 76.07% of those who provided an opinion indicating support for the VRF and VSL.

d. Recirculation Ballot

A recirculation ballot was held from September 12, 2012 to September 21, 2012. The standard received a quorum of 85.36% and an affirmative vote of 87.34%.

e. Board of Trustees Approval

The final draft of the proposed Reliability Standard was presented to the NERC Board of Trustees for approval on November 7, 2012. The Board of Trustees approved

the proposed Reliability Standard, and NERC staff was authorized to file with applicable governmental authorities.

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EXHIBIT A

Criteria for Reliability Standards

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

Proposed Reliability Standard TOP-006-3 is designed to ensure that the relevant entities, specifically Reliability Coordinators, Transmission Operators and Balancing Authorities, are monitoring critical reliability parameters in real-time. The proposed TOP-006-3 modifies Requirements R1.2 and creates a new Requirement R1.3 of the currently-effective TOP-006-2 standard. The proposed standard ensures that Transmission Operators are only responsible for reporting the availability of transmission resources to Reliability Coordinators and other affected Transmission Operators and that Balancing Authorities are only responsible for reporting the availability of generation resources to Reliability Coordinators. The proposed TOP-006-3 also modifies Requirement R3 which confirms that Reliability Coordinators, Transmission Operators and Balancing Authorities are responsible for providing their operating personnel with appropriate technical information concerning protective relays located with the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority area, respectively.

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 TOP-006-3 Reliability Standard is applicable only to users, owners and operators of the Bulk Power System, and not others. The proposed standard applies to Reliability Coordinators, Transmission Operators and Balancing Authorities, and the action required by the proposed standard is expressly stated.

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

NERC assigned a Medium violation risk factor (“VRF”) to Requirements R1.2, R1.3 and R3. A failure to provide information about transmission resources, generation resources or protective relays could directly and adversely affect the electrical state or capability of the Bulk Electric System, or the ability to effectively monitor, control or restore the Bulk Electric System. A single VRF is justified because these three Requirements serve one objective – to ensure that critical reliability parameters are monitored in real-time.

The proposed violation severity level (“VSL”) assigned to the new Requirement R1.3 meets NERC’s VSL guidelines. The proposed Requirement R1.3 is analogous to approved TOP-006-2, Requirement R1.2 which is also based on a single violation and is binary. Therefore, the proposed VSL satisfies the following guidelines:

- (i) It does not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed;
- (ii) It does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations;
- (iii) It uses the same terminology as used in the associated requirement and is consistent with the requirement;
- (iv) It is based on a single violation and not cumulative violations.

Under the scope of the Rapid Revision Procedure, NERC only made conforming changes to the VSLs for R1.2 and R3 consistent with the propose changes in those requirements. Other than these conforming changes, the VSLs for Requirements R1.2

and R3 remain unchanged in the proposed TOP-006-3 Reliability Standard. For a list of the existing VRFs and VSLs, please see **Exhibit B**.

4. A proposed Reliability Standard must identify 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 TOP-006-3 Reliability Standard is supported by a measure that clearly identifies what is required and how the requirement will be enforced. These eight measures will ensure that the Requirements are properly administered for enforcement in a consistent manner and without prejudice to any party. Conforming modifications were made to the compliance elements of the proposed TOP-006-3 Reliability Standard consistent with the changes in Requirements R1.2, R1.3 and R3.

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 Standard helps the industry achieve the stated reliability goal effectively and efficiently. The implementation costs should not be unduly burdensome given that Transmission Operators, Balancing Authorities and Reliability Coordinators are not assigned any additional responsibilities under these revisions.

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 TOP-006-3 Reliability Standard does not reflect a “lowest common denominator” approach. The proposed standard represents an improvement over the currently-effective TOP-006-2 Reliability Standard because it delineates the monitoring

roles of Transmission Operators, Balancing Authorities and Reliability Coordinators with respect to critical reliability parameters.

The proposed TOP-006-3 Reliability Standard will apply equally to all applicable entities in a consistent manner. The standard does not impose requirements that are completely new or unfamiliar to the industry.

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.

NERC has developed the proposed TOP-006-3 Reliability Standard to apply to all of North America.

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 TOP-006-3 Reliability Standard has no undue negative effect on competition. It does not create an undue advantage for one competitor over another. The focus of the proposed Reliability Standard is to ensure that critical reliability parameters are monitored in real-time by the appropriate entities.

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 pursuant to the Rapid Revision Procedure developed by the Standards Committee Process Subcommittee to formalize a process for developing limited and narrowly defined revisions to a Reliability Standard. The Rapid Revision Procedure accelerates the development of narrow revisions while adhering to the Standard Processes Manual. The Rapid Revision Procedure still requires a Standard Authorization Request; however, it is posted alongside limited, focused, and narrowly defined revisions to the Reliability Standard and Implementation Plan. This procedure was approved for posting by the Standards Committee on October 11, 2012 and requires only one 45-day comment and ballot procedure before proceeding to a final recirculation ballot. (for a more thorough review, please see the complete development history included as **Exhibit E**).

All standard 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 must explain any balancing of vital public interests in the development of proposed Reliability Standards.

There are no competing public interests with respect to the request for approval of this proposed standard.

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

The proposed TOP-006-3 Reliability Standard satisfies the general criteria for Reliability Standards. NERC is not proposing any additional factors for consideration to support the proposed standard.

EXHIBITS B – G

(Available on the NERC Website at
http://www.nerc.com/fileUploads/File/Filings/Attachments_TOP-006-3_B-F)