UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION	**)** **)**	**Docket No. RD12-_____**

PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION FOR APPROVAL OF PROPOSED RELIABILITY STANDARD TOP-006-3 MONITORING SYSTEM CONDITIONS

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In accordance with Section 215(d)(1) of the Federal Power Act ("FPA")[1] and Section 39.5 of the Federal Energy Regulatory Commission ("FERC" or the "Commission") regulations, 18 C.F.R. § 39.5 (2012), the North American Electric Reliability Corporation ("NERC")[2] hereby requests that the Commission approve 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.[3] 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.

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[1] 16 U.S.C. § 824o (2012).

[2] NERC was certified by FERC as the electric reliability organization ("ERO") in accordance with Section 215 of the Federal Power Act in an order issued July 20, 2006 in Docket No. RR06-1-000. *North American Electric Reliability Corp.*, 116 FERC ¶ 61,062 (2006) ("ERO Certification Order").

[3] 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. In its ERO Certification Order, the Commission found that 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 Commission for approval.

By this petition, NERC is requesting approval 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;

- 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.[4] The proposed TOP-006-3 Reliability Standard also revises

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

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 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:[5]

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III. BACKGROUND ON REGULATORY FRAMEWORK

a. Regulatory Framework

[5] Persons to be included on the Commission's service list are indicated with an asterisk. NERC requests waiver of the Commission's rules and regulations to permit the inclusion of more than two people on the service list.

By enacting the Energy Policy Act of 2005,[6] Congress entrusted the Commission with the duties of approving and enforcing rules to ensure the reliability of the Nation's Bulk-Power System, and with the duties of certifying an ERO that would be charged with developing and enforcing mandatory Reliability Standards, subject to Commission approval. Section 215(b)(1)[7] of the FPA states that all users, owners, and operators of the Bulk-Power System in the United States will be subject to Commission-approved Reliability Standards. Section 215(d)(5)[8] of the FPA authorizes the Commission to order the ERO to submit a new or modified Reliability Standard. Section 39.5(a)[9] of the Commission's regulations requires the ERO to file with the Commission for its approval each Reliability Standard that the ERO proposes should become mandatory and enforceable in the United States, and each modification to a Reliability Standard that the ERO proposes should be made effective.

The Commission has the regulatory responsibility to approve standards that protect the reliability of the Bulk-Power System and to ensure that such standards are just, reasonable, not unduly discriminatory or preferential, and in the public interest. Pursuant to Section 215(d)(2) of the FPA[10] and Section 39.5(c)[11] of the Commission's regulations, the Commission will give due weight to the technical expertise of the ERO with respect to the content of a Reliability Standard.

b. NERC Reliability Standards Development Procedure

[6] 16 U.S.C. § 824o (2006).
[7] *Id.* § 824(b)(1).
[8] *Id.* § 824o(d)(5).
[9] 18 C.F.R. § 39.5(a) (2012).
[10] 16 U.S.C. § 824o(d)(2).
[11] 18 C.F.R. § 39.5(c)(1).

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. In its ERO Certification Order, FERC found that 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.[12]

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 Commission.

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 FOR APPROVAL 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.[13] With respect to Requirement R1.2, FMPP requested that NERC explain

[12] Order No. 672 at PP 268, 270.

[13] The currently effective TOP-006-2 Reliability Standard was filed on December 31, 2009 in Docket RM10-15-000 and approved by the Commission on March 17, 2011 in Order No. 748 (*Mandatory Reliability Standards for Interconnection Reliability Operating Limits, Final Rule*, 134 FERC ¶ 61,213

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 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

(March 17, 2011)). 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.

(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.

Since 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, NERC is not providing a comprehensive explanation in this filing regarding how the VSL for revised Requirements R1.2 and R3 meet Commission guidelines.[14]

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

[14] Please note that VSLs for TOP-006-2 are currently pending before FERC in the *Compliance Filing of the North American Electric Reliability Corporation in Response to the Order on Violation Severity Levels Proposed by the Electric Reliability Organization*, Docket No. RR08-4-000 (December 1, 2010). This filing included guidelines summaries explaining how the proposed VSLs conformed to FERC VSL guidelines.

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

When evaluating a proposed Reliability Standard, the Commission is expected to give "due weight" to the technical expertise of the ERO.[15] 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

[15] Section 215(d)(2) of the Federal Power Act; 16 U.S.C. § 824o(d)(2) (2011).

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 regulatory authorities.

VI. CONCLUSION

For the reasons set forth above, NERC respectfully requests that the Commission:

- approve 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.

- approve the implementation plan for Reliability Standard TOP-006-3 which is included in **Exhibit C**;

- approve the retirement of the currently-effective TOP-006-2 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.

Respectfully submitted,

/s/ Holly A. Hawkins

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CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 3rd day of February, 2013.

/s/ Holly A. Hawkins
Holly A. Hawkins
Assistant General Counsel for North American Electric Reliability Corporation

EXHIBIT A

Order No. 672 Criteria

In Order No. 672,[16] the Commission identified a number of criteria it will use to analyze Reliability Standards proposed for approval to ensure they are just, reasonable, not unduly discriminatory or preferential, and in the public interest. The discussion below identifies these factors and explains how the proposed Reliability Standard has met or exceeded the 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.[17]

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

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[16] *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

[17] Order No. 672 at P 321. The proposed Reliability Standard must address a reliability concern that falls within the requirements of section 215 of the FPA. That is, it must provide for the reliable operation of Bulk-Power System facilities. It may not extend beyond reliable operation of such facilities or apply to other facilities. Such facilities include all those necessary for operating an interconnected electric energy transmission network, or any portion of that network, including control systems. The proposed Reliability Standard may apply to any design of planned additions or modifications of such facilities that is necessary to provide for reliable operation. It may also apply to Cybersecurity protection.

Order No. 672 at P 324. The proposed Reliability Standard must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve this goal. Although any person may propose a topic for a Reliability Standard to the ERO, in the ERO's process, the specific proposed Reliability Standard should be developed initially by persons within the electric power industry and community with a high level of technical expertise and be based on sound technical and engineering criteria. It should be based on actual data and lessons learned from past operating incidents, where appropriate. The process for ERO approval of a proposed Reliability Standard should be fair and open to all interested persons.

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.[18]

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. [19]

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

[18] Order No. 672 at P 322. The proposed Reliability Standard may impose a requirement on any user, owner, or operator of such facilities, but not on others.

Order No. 672 at P 325. The proposed Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply. Users, owners, and operators of the Bulk-Power System must know what they are required to do to maintain reliability.

[19] Order No. 672 at P 326. The possible consequences, including range of possible penalties, for violating a proposed Reliability Standard should be clear and understandable by those who must comply.

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. Therefore, NERC is not providing a comprehensive explanation in this filing regarding how the VSLs for Requirements R1.2 (severe VSL) and R3 (lower and severe VSL) meet Commission guidelines.

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. [20]

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 that will ensure that the Requirements are properly administered for enforcement in a consistent manner and without prejudice to any party were approved by the Commission in Order No. 749. 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.[21]

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.[22]

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[20] Order No. 672 at P 327. There should be a clear criterion or measure of whether an entity is in compliance with a proposed Reliability Standard. It should contain or be accompanied by an objective measure of compliance so that it can be enforced and so that enforcement can be applied in a consistent and non-preferential manner.

[21] Order No. 672 at P 328. The proposed Reliability Standard does not necessarily have to reflect the optimal method, or "best practice," for achieving its reliability goal without regard to implementation cost or historical regional infrastructure design. It should however achieve its reliability goal effectively and efficiently.

[22] Order No. 672 at P 329. The proposed Reliability Standard must not simply reflect a compromise in the ERO's Reliability Standard development process based on the least effective North American practice — the so-called "lowest common denominator" — if such practice does not adequately protect Bulk-Power System reliability. Although FERC will give due weight to the technical expertise of the ERO, we will not hesitate to remand a proposed Reliability Standard if we are convinced it is not adequate to protect 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.[23]

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.[24]

Order No. 672 at P 330. A proposed Reliability Standard may take into account the size of the entity that must comply with the Reliability Standard and the cost to those entities of implementing the proposed Reliability Standard. However, the ERO should not propose a "lowest common denominator" Reliability Standard that would achieve less than excellence in operating system reliability solely to protect against reasonable expenses for supporting this vital national infrastructure. For example, a small owner or operator of the Bulk-Power System must bear the cost of complying with each Reliability Standard that applies to it.

[23] Order No. 672 at P 331. A proposed Reliability Standard should be designed to apply throughout the interconnected North American Bulk-Power System, to the maximum extent this is achievable with a single Reliability Standard. The proposed Reliability Standard should not be based on a single geographic or regional model but should take into account geographic variations in grid characteristics, terrain, weather, and other such factors; it should also take into account regional variations in the organizational 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.

[24] Order No. 672 at P 332. As directed by section 215 of the FPA, FERC itself will give special attention to the effect of a proposed Reliability Standard on competition. The ERO should attempt to develop a

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.[25]

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 Commission-approved Reliability Standard development process.[26]

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proposed Reliability Standard that has no undue negative effect on competition. Among other possible considerations, a proposed Reliability Standard should not unreasonably restrict available transmission capability on the Bulk-Power System beyond any restriction necessary for reliability and should not limit use of the Bulk-Power System in an unduly preferential manner. It should not create an undue advantage for one competitor over another.

[25] Order No. 672 at P 333. In considering whether a proposed Reliability Standard is just and reasonable, FERC will consider also the timetable for implementation of the new requirements, including how the proposal balances any urgency in the need to implement it against the reasonableness of the time allowed for those who must comply to develop the necessary procedures, software, facilities, staffing or other relevant capability.

[26] Order No. 672 at P 334. Further, in considering whether a proposed Reliability Standard meets the legal standard of review, we will entertain comments about whether the ERO implemented its Commission-approved Reliability Standard development process for the development of the particular proposed Reliability Standard in a proper manner, especially whether the process was open and fair. However, we caution that we will not be sympathetic to arguments by interested parties that choose, for whatever reason, not to participate in the ERO's Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by FERC.

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.[27]

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.[28]

[27] Order No. 672 at P 335. Finally, we understand that at times development of a proposed Reliability Standard may require that a particular reliability goal must be balanced against other vital public interests, such as environmental, social and other goals. We expect the ERO to explain any such balancing in its application for approval of a proposed Reliability Standard.

[28] Order No. 672 at P 323. In considering whether a proposed Reliability Standard is just and reasonable, we will consider the following general factors, as well as other factors that are appropriate for the particular Reliability Standard proposed.

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

EXHIBIT B

A. Introduction

1. **Title:** **Monitoring System Conditions**
2. **Number:** TOP-006-3
3. **Purpose:** To ensure critical reliability parameters are monitored in real-time.
4. **Applicability:**
   - **4.1. Functional Entities**
     - **4.1.1** Transmission Operators
     - **4.1.2** Balancing Authorities
     - **4.1.3** Generator Operators
     - **4.1.4** Reliability Coordinators
5. **(Proposed) Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays within the Reliability Coordinator Area, the Transmission Operator

Area, and the Balancing Authority Area, respectively. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement R1.1)

M2. Each Transmission Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. (Requirement R1.2)

M3. Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator of all generation resources available for use. (Requirement R1.3)

M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement R2.

M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. (Requirement R3)

M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement R4)

M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement R5)

M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement R7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

The Regional Entity shall serve as the Compliance Enforcement Authority (CEA) unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases the ERO or a Regional Entity approved by FERC or other applicable governmental authority shall serve as the CEA.

1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure 3.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure 4, 5, 7 and 8

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure 6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- 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	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority. OR The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. OR The responsible entity failed to inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.

R1.1	Real-time Operations	Medium	N/A	N/A	N/A	N/A
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	N/A
R1.3	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator of all generation resources available for use.
R2	Real-time Operations	High	The responsible entity failed to monitor 5% or less of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor more than 5% up to (and including) 10% of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor more than 10% up to (and including) 15% of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.	The responsible entity failed to monitor more than 15% of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The responsible entity failed to provide 5% or less of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 5% up to (and including) 10% of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 10% up to (and including) 15% of the appropriate technical information concerning protective relays to its operating personnel.	The responsible entity failed to provide more than 15% of the appropriate technical information concerning protective relays to its operating personnel.
R4	Operations Planning, Same-day Operations, Real-time	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern, but not both.	The responsible entity has neither weather forecasts nor past load patterns available to predict the system's near-term load pattern.

	Operations					
R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but it does not have indication of the need for corrective action.	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March 23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	November 7, 2012	Adopted by NERC Board of Trustees	Changes to bring document format to new guidelines. Added Time Horizons. Rapid revision to accommodate interpretation request for Requirements R1.2 & R3. Updates made to the VSL table.

A. Introduction

1. **Title:** **Monitoring System Conditions**
2. **Number:** TOP-006-~~2~~3
3. **Purpose:** To ensure critical reliability parameters are monitored in real-time.
4. **Applicability:**

4.1. Functional Entities

4.1.1 Transmission Operators.

4.1.2 Balancing Authorities.

4.1.3 Generator Operators.

4.1.4 Reliability Coordinators.

~~5.~~ **(Proposed) Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the ~~standard shall become effective on the latter of either April 1, 2009 or the first day of the first calendar quarter, three months after BOT adoption.~~

~~6.~~5. ~~In those jurisdictions where regulatory approval is required, the standard shall~~requirements become effective ~~on the latter of either April 1, 2009 or~~ the first day of the first calendar quarter~~, three months after applicable regulatory approval.~~ following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator ~~and Balancing Authority~~ shall inform the Reliability Coordinator and other affected ~~Balancing Authorities and~~ Transmission Operators of all ~~generation and~~ transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~to their operating personnel.~~within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement ~~1~~R1.1)

M2. ~~Each Transmission Operator and~~Each Transmission Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. (Requirement R1.2)

~~**M2.**~~**M3.** Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic

communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator ~~and other affected Balancing Authorities and Transmission Operators~~ of all generation ~~and transmission~~ resources available for use. (Requirement ~~1.2)~~ R1.3)

~~M3.~~M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement ~~2.~~R2.

M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. (Requirement R3)

~~M4.~~M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement ~~4)~~R4)

~~M5.~~M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement ~~5~~R5)

~~M6.~~M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement ~~7)~~ R7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance ~~Monitoring Responsibility~~Enforcement Authority

The Regional ~~Reliability Organizations~~Entity shall ~~be responsible for compliance monitoring.~~

~~1.2.~~serve as the Compliance ~~Monitoring and Reset Time Frame~~

~~One or more of the following methods will be used to assess compliance:~~

~~- Self-certification (Conducted annually with submission according to schedule.)~~

~~- Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)~~

~~- Periodic Audit (Conducted once every three years according to schedule.)~~

~~- Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The~~ Enforcement Authority (CEA) unless the applicable entity ~~will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered~~is owned, operated, or controlled by the ~~Compliance Monitor on~~ Regional Entity. In such cases the ERO or a ~~case-~~Regional Entity approved by ~~case basis.)~~

~~The Performance-Reset Period~~ FERC or other applicable governmental authority shall ~~be 12 months from the last finding of non-compliance.~~ serve as the CEA.

~~1.3.~~1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator ~~and~~shall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure ~~2~~3.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure ~~3~~4, 5, 7 and ~~6.~~8

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure ~~4.~~6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor~~,~~.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- Compliance Investigation
- Self-Reporting
- Complaint

1.4. Additional Compliance Information

None.

~~2.Violation Severity Levels:~~

Table of Compliance Elements

R # ~~R#~~	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority. OR The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. OR The responsible entity failed to inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.

R1.1	Real-time Operations	Medium	N/A	N/A	N/A	~~The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.~~N/A
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	N/A
R1.~~2~~3	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform ~~the~~its Reliability Coordinator ~~and other affected Balancing Authorities and Transmission Operators~~ of all generation ~~and transmission~~ resources available for use.
R2	Real-time Operations	High	~~N/A~~The responsible entity failed to monitor 5% or less of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.	The responsible entity ~~monitors the~~failed to monitor more than 5% up to (and including) 10% of applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, ~~but is not aware of the~~and status of rotating and static reactive resources.	The responsible entity fail~~s~~ed to monitor ~~all~~more than 10% up to (and including) 15% of ~~the~~ applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of ~~all~~ rotating and static reactive resources.	The responsible entity fail~~s~~ed to monitor ~~any~~more than 15% of ~~the~~ applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The responsible entity failed to provide ~~any~~5% or less of the appropriate technical information concerning protective	~~N/A~~The responsible entity failed to provide more than 5% up to (and including) 10% of the appropriate technical information	~~N/A~~The responsible entity failed to provide more than 10% up to (and including) 15% of the appropriate technical information	The responsible entity failed to provide ~~all~~more than 15% of the appropriate technical information concerning

			relays to ~~their~~its operating personnel.	concerning protective relays to its operating personnel.	concerning protective relays to its operating personnel.	protective relays to ~~their~~its operating personnel.
R4	Operations Planning, Same-day Operations, Real-time Operations	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern, but not both.	The responsible entity ~~failed to have both~~has neither weather forecasts ~~and~~nor past load patterns~~,~~ available to predict the system's near-term load pattern.
R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but it does not have indication of the need for corrective action.	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None ~~identified~~.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March ~~17~~23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	November 7, 2012	Adopted by NERC Board of Trustees	Changes to bring document format to new guidelines. Added Time Horizons. Rapid revision to accommodate interpretation request for Requirements R1.2 & R3. Updates made to VSL Table.

EXHIBIT C

Project 2010-INT-01 - TOP-006-2 for FMPP
Implementation Plan

Requested Approvals

- TOP-006-3 – Monitoring System Conditions

Requested Retirements

- TOP-006-2 – Monitoring System Conditions

Prerequisite Approvals

- None

Revisions to Defined Terms in the NERC Glossary

- None

Background

The Standards Committee approved a rapid development process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

General Considerations

Requirement R1.2 was revised to show that Transmission Operators will be responsible for transmission information. Requirement R1.3 was created to clarify that the Balancing Authorities provide generation information to its Reliability Coordinator and Transmission Operator but not to other Balancing Authorities. (This eliminates the need for CAN-0028.) These changes are consistent with the roles and responsibilities for these entities in Functional Model v5. The Measures, Data Retention, and VSLs have been adjusted accordingly.
Requirement R3 was clarified to show that entities will only be responsible for providing relay information for equipment that they are responsible for. (This eliminates the need for CAN-0026.)
Time Horizons have been added for all requirements.
Formatting has been brought up to the latest guidelines.

Applicable Entities

- Transmission Operators
- Balancing Authorities
- Generator Operators
- Reliability Coordinators

Effective Dates

In those jurisdictions where regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

Already Approved Standard	Proposed Replacement Requirement(s)
TOP-006-2 **R1.2** Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.	TOP-006-3 R1.2 Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*] R1.3 Each Balancing Authority shall inform its Reliability Coordinator and its Transmission Operators of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]
Notes: The RTOSDT recommends replacing R1.2 with a revised R1.2 and a new R1.3 as shown. This will allow for the proper allocation of responsibility for the information cited as per Functional Model v5.	

Already Approved Standard	Proposed Replacement Requirement(s)
TOP-006-2 **R3** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	TOP-006-3 **R3** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]
Notes: The RTOSDT recommends the insertion of the phrase 'for which the entity has responsibility' which will make it clear that an entity can only supply information for equipment that they have responsibility for and not for equipment that is another entity's responsibility.	

EXHIBIT D

Interpretation 2010-INT-01
Rapid Revision of TOP-006-2 for FMPP

Related Files

Status:
The standard and implementation plan were adopted by the Board of Trustees on November 7, 2012.

Purpose/Industry Need:
Ask for clarification for Requirement 1.2 for reporting responsibility and Requirement 3 for technical information responsibility.

Interpretation Process:
In accordance with the Reliability Standards Development Procedure, the interpretation must be posted for a 30-day pre-ballot review, and then balloted. There is no public comment period for an interpretation. Balloting will be conducted following the same method used for balloting standards. If the interpretation is approved by its ballot pool, then the interpretation will be appended to the standard and will become effective when adopted by the NERC Board of Trustees and approved by the applicable regulatory authorities. The interpretation will remain appended to the standard until the standard is revised through the normal standards development process. When the standard is revised, the clarifications provided by the interpretation will be incorporated into the revised standard.

Draft	Action	Dates	Results	Consideration of Comments
Draft 2 **TOP-006-3** Clean | Redline | Redline to Last Approved **Supporting Documents:** Implementation Plan SAR VRF/VSL Justification	Recirculation Ballot Info Vote>>	09/12/12 - 09/21/12 (closed)	Updated Summary Ballot Results	
Draft 1 **TOP-006-3** Clean | Redline	Initial Ballot Info	07/20/12 - 07/30/12 (closed)	Summary Ballot	

Supporting Documents: Unofficial Comment Form (Word) Implementation Plan SAR VRF/VSL Justification	Vote>>		Results Non-binding Poll Results	
	Comment Period Info Submit Comments>>	06/14/12 - 07/30/12 (closed)	Comments Received	Consideration of Comments **(1)**
	Join Ballot Pool>>	06/14/12 - 07/13/12 (closed)		
FMPP Interpretation of TOP-006-2 R1.2 and R3 Request for Interpretation Interpretation	Recirculation Ballot			
	Initial Ballot			
	Pre-ballot Window Info | Join>>	03/05/10 - 04/05/10 (closed)		

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Project 2010-INT-01

The Project 2010-INT-01 Drafting Team thanks all commenters who submitted comments on TOP-006-3 - Monitoring System Conditions. These standards were posted for a 45-day public comment period from June 14, 2012 through July 30, 2012. Stakeholders were asked to provide feedback on the standard and associated documents through a special electronic comment form. There were 32 sets of comments, including comments from approximately 143 different people from approximately 84 companies representing all 10 Industry Segments as shown in the table on the following pages.

The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03, which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

Several commenters pointed to a redundancy in Requirement R1.3. The SDT agrees with these comments and has made the clarifying change needed to remove this redundancy.

Several commenters pointed to a lack of clarity in Requirement R3. The SDT agrees with these comments and has made a clarifying change.

Commenters also pointed to the apparent redundancy in the VSL for Requirement R3. The SDT has made a clarifying change within the constraints of the rapid revision process that will be posted in the VRF/VSL non-binding poll.

The SDT has made only clarifying changes to the requirements and has not changed the context of any requirement. Therefore, the SDT is requesting that this project be moved to recirculation ballot.

All comments submitted may be reviewed in their original format on the standard's project page.

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President of Standards, Mark Lauby, at 404- 524-7077 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

[1] The appeals process is in the Standard Processes Manual: http://www.nerc.com/files/Appendix_3A_StandardsProcessesManual_20120131.pdf

Index to Questions, Comments, and Responses

The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Guy Zito	Northeast Power Coordinating Council										x

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	New York State Reliability Coouncil, LLC	NPCC	10
2.	Carmen Agavriloai	Independent Electricity System Operator	NPCC	2
3.	Greg Campoli	New York Independent System Operator	NPCC	2
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1
6.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5
8.	Kathleen Goodman	ISO - New England	NPCC	2
9.	Michael Jones	National Grid	NPCC	1
10.	David Kiguel	Hydro One Networks Inc.	NPCC	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

11.	Michael Lombardi	Northeast Utilities	NPCC	1
12.	Randy MacDonald	New Brunswick Power Transmission	NPCC	9
13.	Bruce Metruck	New York Power Authority	NPCC	6
14.	Silvia Parada Mitchell	NextEra Energy, LLC	NPCC	5
15.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
16.	Robert Pellegrini	The United Illuminating Company	NPCC	1
17.	Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
18.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
19.	Brian Robinson	Utility Services	NPCC	8
20.	Michael Schiavone	National Grid	NPCC	1
21.	Wayne Sipperly	New York Power Authority	NPCC	5
22.	Donald Weaver	New Brunswick System Operator	NPCC	2
23.	Ben Wu	Oragne and Rockland Utilities	NPCC	1
24.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3

2.	Group	WILL SMITH	MRO NSRF	x	x	x	x	x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	MAHMOOD SAFI	OPPD	MRO	1, 3, 5, 6
2.	CHUCK LAWRENCE	ATC	MRO	1
3.	TOM BREENE	WPS	MRO	3, 4, 5, 6
4.	JODI JENSON	WAPA	MRO	1, 6
5.	KEN GOLDSMITH	ALTW	MRO	4
6.	ALICE IRELAND	XCEL	MRO	1, 3, 5, 6
7.	DAVE RUDOLPH	BEPC	MRO	1, 3, 5, 6
8.	JOE DEPOORTER	MGE	MRO	3, 4, 5, 6
9.	SCOTT NICKELS	RPU	MRO	4
10.	TERRY HARBOUR	MEC	MRO	1, 3, 5, 6
11.	MARIE KNOX	MISO	MRO	2
12.	LEE KITTELSON	OTP	MRO	1, 3, 4, 5
13.	SCOTT BOS	MPW	MRO	1, 3, 5, 6
14.	TONY EDDLEMAN	NPPD	MRO	1, 3, 5
15.	MIKE BRYTOWSKI	GRE	MRO	1, 3, 5, 6
16.	DAN INMAN	MPC	MRO	1, 3, 5, 6

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
17. ERIC RUSKAMP	LES	MRO 1, 3, 5, 6										
3. Group	Chris Higgins	Bonneville Power Administration	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Tedd	Snodgrass	WECC	1
2.	Rich	Ellison	WECC	1

4. Group	Emily Pennel	Southwest Power Pool Regional Entity										x

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Allen	City Utilities of Springfield	SPP	1, 4
2.	Doug Callison	Grand River Dam Authority	SPP	1, 3, 5
3.	Michelle Corley	Cleco Power	SPP	1, 3, 5
4.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5
5.	Allen Klassen	Westar Energy	SPP	1, 3, 5, 6
6.	Tiffany Lake	Westar Energy	SPP	1, 3, 5, 6
7.	Tara Lightner	Sunflower Electric Power Corporation	SPP	1
8.	Kyle McMenamin	Xcel Energy	SPP	1, 3, 5, 6
9.	Jerry McVey	Sunflower Electric Power Corporation	SPP	1
10.	Terri Pyle	Oklahoma Gas & Electric	SPP	1, 3, 5
11.	Bryan Taggart	Westar Energy	SPP	1, 3, 5, 6

5. Group	Connie Lowe	Dominion	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Louis Slade		RFC	5, 6
2.	Mike Garton		NPCC	5, 6
3.	Michael Crowley		SERC	1, 3
4.	Randi Heise		MRO	5, 6

6. Group	Greg Rowland	Duke Energy	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Doug Hils	Duke Energy	RFC	1
2.	Ed Ernst	Duke Energy	SERC	3
3.	Dale Goodwine	Duke Energy	SERC	5
4.	Greg Cecil	Duke Energy	RFC	6

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
7.	Group	Al DiCaprio	ISO/RTO Council Standards Review Committee		x								

	Additional Member	Additional Organization	Region	Segment Selection
1.	Greg Campoli	NYISO	NPCC	2
2.	Kathleen Goodman	ISO-NE	NPCC	2
3.	Terry Bilke	MISO	MRO	2
4.	Steve Myers	ERCOT	ERCOT	2
5.	Ben Li	IESO	NPCC	2
6.	Don Weavers	NBSO	NPCC	2

8.	Group	Wayne Van Liere	SERC OC Standards Review Group			x							

	Additional Member	Additional Organization	Region	Segment Selection
1.	Jeff Harrison	AECI	SERC	1, 3, 5, 6
2.	Melvin Roland	Southern Co.	SERC	1, 5
3.	Kelly Casteel	TVA	SERC	1, 3, 5, 6
4.	Vicky Budreau	Santee Cooper	SERC	1, 3, 5, 6
5.	Jake Miller	Dynegy	SERC	5
6.	Jim Case	Entergy	SERC	1, 3, 6
7.	Brad Young	LGE/KU	SERC	3
8.	Troy Willis	GA Transmission	SERC	1
9.	Scott Brame	NCEMCS	SERC	1, 3, 4, 5
10.	Tim Hattaway	PowerSouth	SERC	1, 5
11.	Sammy Roberts	Progress Energy	SERC	1, 3, 5, 6
12.	Marc Butts	Southern Co.	SERC	1, 5
13.	Todd lucas	Southern Co.	SERC	1, 5
14.	Cindy Martin	Southern Co.	SERC	1, 5
15.	Dan Roethemeyer	Dynegy	SERC	5
16.	Richard Jackson	Alcoa	SERC	5, 6, 7
17.	Steve Corbin	SERC	SERC	10
18.	Andy Burch	EEI	SERC	5
19.	Robert Thomasson	BREC	SERC	1
20.	Randy Castello	Southern Co.	SERC	1, 5
21.	Mike Bryson	PJM	SERC	2

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
22. John Troha	SERC	SERC 10										
9. Group	Steve Rueckert	Western Electricity Coordinating Council										x

	Additional Member	Additional Organization	Region	Segment Selection
1.	Phil O'Donnell	WECC	WECC	10

10. Group	Stephen Berger	PPL Corporation NERC Registered Affiliates	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Brenda L. Truhe	PPL Electric Utilities Corporation	RFC	1
2.	Brent Ingebrigston	LG&E and KU Services Company	SERC	3
3.	Annette M. Bannon	PPL Generation, LLC on behalf of its Supply NERC Registered Entities	RFC	5
4.			WECC	5
5.	Elizabeth A. Davis	PPL EnergyPlus, LLC	MRO	6
6.			NPCC	6
7.			SERC	6
8.			SPP	6
9.			RFC	6
10.			WECC	6

11. Group	Robert Rhodes	SPP Standards Review Group		x								

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Allen	City Utilities of Springfield	SPP	1, 4
2.	Doug Callison	Grand River Dam Authority	SPP	1, 3, 5
3.	Michelle Corley	Cleco Power	SPP	1, 3, 5
4.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5
5.	Allen Klassen	Westar Energy	SPP	1, 3, 5, 6
6.	Tiffany Lake	Westar Energy	SPP	1, 3, 5, 6
7.	Tara Lightner	Sunflower Electric Power Corporation	SPP	1
8.	Kyle McMenamin	Xcel Energy	SPP	1, 3, 5, 6
9.	Jerry McVey	Sunflower Electric Power Corporation	SPP	1
10.	Terri Pyle	Oklahoma Gas & Electric	SPP	1, 3, 5
11.	Bryan Taggart	Westar Energy	SPP	1, 3, 5, 6

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
12.	Group	Jason L. Marshall	ACES Power Marketing Standards Collaborators						x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Shari Heino	Brazos Electric Power Cooperative	ERCOT	1, 5
2.	Bob Solomon	Hoosier Energy	RFC	1
3.	Megan Wagner	Sunflower Electric Power Corporation	SPP	1
4.	Forrest Brock	Western Farmers Electric Cooperative	SPP	1, 5
5.	John Shaver	Arizona Electric Power Cooperative	WECC	4, 5
6.	John Shaver	Southwest Transmission Cooperative, Inc.	WECC	1

13.	Individual	Jim Eckelkamp	Progress Energy	x		x		x	x				
14.	Individual	DeWayne Scott	Tennessee Valley Authority	x		x		x	x				
15.	Individual	Shammara Hasty	Southern Company	x		x		x	x				
16.	Individual	Scott McGough	Georgia System Operations Corporation			x							
17.	Individual	Michael Falvo	Independent Electricity System Operator		x								
18.	Individual	Mace Hunter	Lakeland Electric	x		x		x					
19.	Individual	Thad Ness	American Electric Power	x		x		x	x				
20.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	x		x		x	x				
21.	Individual	Wayne Sipperly	New York Power Authority	x		x		x	x				
22.	Individual	Terri Pyle	Oklahoma Gas & Electric	x		x		x					
23.	Individual	Patrick Brown	Essential Power, LLC					x					
24.	Individual	Jonathan Appelbaum	The United illuminating Company	x									
25.	Individual	Don Jones	Texas Reliability Entity										x
26.	Individual	Scott Bos	Muscatine Power and Water	x		x		x	x				
27.	Individual	Andrew Z. Pusztai	American Transmission Company	x									
28.	Individual	Jack Stamper	Clark Public Utilities	x									
29.	Individual	Darryl Curtis	Oncor Electric Delivery	x									
30.	Individual	Chris Mattson	Tacoma Power	x		x	x	x	x				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
31.	Individual	Tony Kroskey	Brazos Electric Power Cooperative, Inc.	x									
32.	Individual	Michael Gammon	Kansas City Power & Light	x		x		x	x				

1. **The SDT has altered Requirement R1.2 to apply solely to Transmission Operators and transmission information, while creating a new Requirement R1.3 to apply solely to Balancing Authorities and generation information. Do you agree with these changes? This includes accompanying Measures, data retention, and VSLs. If not, please provide a detailed explanation and suggested changes.**

Summary Consideration: The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03, which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

Several commenters pointed to a redundancy in Requirement R1.3. The SDT agrees with these comments and has made the clarifying change needed to remove this redundancy.

R1.3 Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use.

Organization	Yes or No	Question 1 Comment
Dominion	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. Dominion suggests the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, Dominion feels that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
SERC OC Standards Review Group	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. We suggest the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked

Organization	Yes or No	Question 1 Comment
		to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, we feel that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
Tennessee Valley Authority	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. We suggest the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, we feel that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
PPL Corporation NERC Registered Affiliates	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity.The TOP (or GOP) cannot be held responsible for transmission (or generation) resources outside of its area of responsibility (i.e. outside its jurisdiction or not under its control). The revised R1.2 and new R1.3 do not state this distinction and are thus too broad. Suggest R1 be revised to:Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use as specified in R1.1 and R1.2. Suggest R1.2 be revised to:Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of transmission resources under its control which are available for use.Suggest R1.3 be revised to:Each Balancing Authority shall inform its Reliability Coordinator and Transmission Operator of generation resources within its Balancing Authority Area which are available for use.
Response: The scope presented to the SDT under the rapid revision process only authorized changes to Requirements R1.2 and R3.		

Organization	Yes or No	Question 1 Comment
No change made.		
Duke Energy	No	(1) R1.2 - The TOP should continue to inform its BA about transmission resources available for use. The Functional Model states that the Transmission Operator "15. Provides Real-time operations information to the Reliability Coordinator and Balancing Authority." Also, since TOPs can't determine which other TOPs may be "affected", we believe the TOP should inform "adjacent" TOPs about transmission resources available for use. Reword R1.2 as follows: " Each Transmission Operator shall inform its Reliability Coordinator, Balancing Authority and adjacent Transmission Operators of all transmission resources available for use." (2) M2 - Revise to be consistent with our suggested change to R1.2 above. (3) M5 - Revise to be consistent with our suggested change to R3 below. (4) VSLs for R1.2 and R3 - Revise to be consistent with our suggested changes to R1.2 and R3. Also, the Lower and Severe VSLs for R3 appear to be reversed (i.e. failure to provide "any" information is a more serious violation than a failure to provide "all" information).
Response: In general, the Transmission Operator is responsible for transmission and for reporting transmission information to the Reliability Coordinator. Similarly, the Balancing Authority is responsible for generation and for reporting generation information to the Reliability Coordinator. OASIS is the mechanism for providing transmission information to other parties. The SDT believes that the Transmission Operator will know who the affected Transmission Operators are and that changing the phrase to "adjacent" will force unneeded and unwanted information on some Transmission Operators. No change made. Since the requirement was not changed, there is no corresponding change to the measure. Please see response to Requirement R3 comments. Since the requirement didn't change, there is no corresponding change to the VSL.		

Organization	Yes or No	Question 1 Comment
Please see response to Requirement R3 comments.		
Lakeland Electric	No	I agree with the changes to R1.2. The new R1.3 is redundant in requiring the BA to inform it's TO of all generator resources available for use when R1.1 requires the GO to inform it's TO of all generator resources available for use. Redundant information would be passing through a third party, the BA.
Western Electricity Coordinating Council	No	1.1 Requires Generator Operator to inform both BA and TOP of Generation Status while 1.3 Requires BA to inform TOP of Generation Status. This is duplicative. IF GOP must inform both TOP and BA there is no need to require BA to inform TOP. Preferable change would be for GOP to only inform BA and require BA to inform TOP. but could also work to have GOP inform both functions and remove requirement for BA to inform TOP from 1.3.
Clark Public Utilities	Yes	R1.3 is confusing to me. My utility is a TOP but not a BA. We have a transmission system which our own personnel operate and we have generation connected to our transmission. Our entire transmission system (with its connected generation) is located within the metering boundaries of one BA. R1.1 states our generator is supposed to notify my utility's TOP organization as well as our BA of its availability. I have no problem with R1.1. R1.3 states the BA is supposed to notify its RC and its TOP. Our BA is also a TOP for its own transmission facilities. Our generator is not attached directly to our BA's transmission facilities but to our transmission facilities. Is R1.3 telling the BA it is supposed to notify it own TOP organization of the generator availability (generator attached to my utility's transmission system)? Chances are the people operating our BA are the same people operating our BA's transmission system so this notification seems kind of pointless. In the alternative, is R1.3 telling the BA it needs to notify the TOP that operates the transmission system the generator is connected to? The generator already did that in R1.1 so this would also seem to be pointless. Does the SDT intend for R1.3 to require the BA to notify its RC and "affected

Organization	Yes or No	Question 1 Comment
		TOPs?" This make a little more sense than the current wording. If this is the intent of the SDT the wording doesn't do it. It seems to me that if per R1.1 the generator notifies it's BA and its TOP and then per R1.3 the BA notifies its RC, everyone has been notified of the generator availability and therefore, R1.3 would not need to include a TOP notification. This issue is not critical to me since it provides a confusing requirement for the BA and my utility is not a BA. Therefore I plan to vote in the affirmative on the draft but the SDT should consider cleaning R1.3 up a bit to make it clear what TOP is supposed to be notified by the BA in R1.3.
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use.		
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	No	(1) Conceptually, we agree with splitting out the BA and TOP requirements. However,additional changes may be warranted. Since the GOP is already obligated to notify its TOP of all generation resources available for use pursuant to R1.1, does it make sense to obligate the BA to also notify the same TOP of the same information in R1.3? (2) Furthermore, does this requirement work as intended for a situation where a generator is pseudo-tied out to another BA which is becoming increasingly common? The problem is that use of the word "its" in R1.3 with regard to a BA informing "its" TOPs could lead to confusion. As an example, one of our members, Sunflower, has several wind farms in its BA Area that are pseudo-tied out to other BA Areas. Let's say Acme Wind Company is the GOP for a wind farm located in Sunflower's footprint and interconnected to transmission facilities owned and

Organization	Yes or No	Question 1 Comment
		operated by Sunflower. Let's further assume that the Acme wind farm is pseudo-tied to KCP&L's BA. If the status of the Acme wind farm changes, they, as GOP, will contact their Host BA (KCP&L) and the Transmission Operator (Sunflower) per R1.1. Requirement 1.3 then requires the KCP&L BA to notify "its Transmission Operator(s)" of all generation resources available for use. Who do they contact about the Acme outage? KCP&L TOP? Sunflower TOP? Both? The word "its" is possessive and implies that the KCP&L BA has a link to certain Transmission Operators. How is that link defined? Is it the TOPs that are directly interconnected to the generation resources that are part of their BA? If that is the case, when would more than one TOP need to be informed of a generator outage - i.e. why does the revised Standard say Transmission Operator(s)? (3) Eliminating the need for the BA to notify the TOP in R1.3 is the cleanest solution. At a minimum, if this requirement is going to remain the wording should be changed to something like "Each BA shall inform ... affected Transmission Operator(s) of all generation resources available for use." This latter solution would be consistent with R1.2. (4) In R1.3, using the word "its" to describe which RC a BA should inform about the status of generation resources is also confusing. If ACME has another generator in Sunflower's footprint interconnected to transmission facilities owned and operated by Sunflower that is pseudo-tied to ERCOT BA, they will notify ERCOT of a status change on this generator per R1.1. ERCOT BA would then be required to notify "its" RC which presumably is the ERCOT RC. The RC for the system in which the generator is located (SPP RC) would not be notified. Replacing "its" with "affected" again seems to make more sense. (5) While we understand that the scope of the rapid revision is fairly limited, we believe that is should be expanded to write appropriate VSLs for R1.2 and R1.3. Both requirements escalate non-compliance immediately to a

Organization	Yes or No	Question 1 Comment
		Severe VSL for failure to notify the appropriate parties of all transmission or generation resources available for use regardless of the number of resources. We believe gradated VSLs could be written based on the percentage of resources for which the responsible entity did not notify the appropriate parties.
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use. The indicated change to Requirement R1.3 will alleviate this concern. The indicated change to Requirement R1.3 will alleviate this concern. Pseudo-ties cover generators that exist outside of the Balancing Authority Area. The Generator Operator will report to the Transmission Operator in whose area it is physically connected in. No change made. The VSL for Requirement R1.2 was already approved and the SDT didn't change anything there. The VSL for Requirement R1.3 was copied from the approved VSL for Requirement R1.2. No change made.		
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
The United illuminating Company	No	The phrasing for R1 can still be interpreted to apply to both Transmission Operators and Balancing Authorities even with the proposed changes to the sub-requirement. We have seen NERC Compliance apply the requirements at the Requirement level without regard to the subrequirements phrasing. We suggest adding an additional phrase to R1 such that R1 states, Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use AS SPECIFIED FURTHER IN THE SUB_REQUIREMENTS. In the alternative, each sub

Organization	Yes or No	Question 1 Comment
		requirement could be relabeled as its own requirement.
Response: The scope presented to the SDT under the rapid revision process only authorized changes to Requirements R1.2 and R3. Furthermore, the suggested wording change does nothing to satisfy the situation cited. By their nature and grammatical definition, sub-requirements are nested under requirements and must be taken into context as part of the requirement. No change made.		
Southern Company	Yes	The GOP is already required to provide information on generating unit availability to the TOP under R1.1. Requiring the BA to also provide this same information to the TOP in R1.3 appears to be unnecessarily redundant. Also, the SDT should consider the redundancy of R1.1 and R1.3 to requirements in other standards that specify information exchange on generating resource availability and capability (e.g., TOP-002-2b, R14.; TOP-003-1, R1.; IRO-010-1a, R3.; etc.)
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use. Such changes are not within scope of this rapid revision project. No change made.		
American Transmission Company	Yes	ATC is encouraged by the action of the SDT in splitting the responsibilities of BAs and TOPs rather than having one requirement for both functions. ATC is further recommending that NERC consider doing this for other Reliability Standards where BAs and TOPs are obligated to same requirements in one requirement, and revise in the same manner.
Response: In order to accomplish this, a Standards Authorization Request (SAR) is needed. The SDT encourages ATC to submit such a request which should include the specific instances where ATC feels such a correction should be made. It should be noted that such changes were within scope of Project 2007-03 and have been made in the Board of Trustees approved changes to the		

Organization	Yes or No	Question 1 Comment
TOP family of standards.		
Muscatine Power and Water	Yes	Thank you
MRO NSRF	Yes	The NSRF agrees, thank you.
Northeast Power Coordinating Council	Yes	
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Bonneville Power Administration	Yes	
Southwest Power Pool Regional Entity	Yes	
ISO/RTO Council Standards Review Committee	Yes	
SPP Standards Review Group	Yes	
Independent Electricity System Operator	Yes	
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	

Organization	Yes or No	Question 1 Comment
Essential Power, LLC	Yes	
Texas Reliability Entity	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Kansas City Power & Light	Yes	
Response: Thank you for your support.		

2. The SDT has revised Requirement R3 to show that entities need only supply information for equipment they are responsible for and not for others' equipment. Do you agree with this change? If not, please provide a detailed explanation and suggested changes.

Summary Consideration: The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03 which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

Several commenters pointed to a lack of clarity in Requirement R3. The SDT agrees with these comments and has made a clarifying change.

Commenters also pointed to the apparent redundancy in the VSL for Requirement R3. The SDT has made a clarifying change within the constraints of the rapid revision process that will be posted in the VRF/VSL non-binding poll.

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.

R3 VSL	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.

Organization	Yes or No	Question 2 Comment
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Northeast Power Coordinating Council	No	The requirement to provide “appropriate technical information” should be revised to require applicable operational information.
Southwest Power Pool Regional Entity	No	"Responsibility" is not the appropriate word in R3 and M5. In R3 and M5, SPP RE recommends stating "...appropriate technical information concerning protective relays in the entity’s footprint. "
Response: The SDT does not see any additional clarification with the suggested wording change of ‘appropriate’ to ‘applicable’. No change made. The SDT has clarified the wording of the requirement. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
Dominion	No	The R3 revision is an improvement but is still too broad as “appropriate technical information” could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it).Dominion believes that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.

Organization	Yes or No	Question 2 Comment
SERC OC Standards Review Group	No	The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it).We also believe that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.
PPL Corporation NERC Registered Affiliates	No	The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does not how it does it).Suggested language:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide System Operators with appropriate information concerning the functions of protective relays to allow such personnel to perform their real-time operating duties on protective relays for which the entity has responsibility.
Tennessee Valley Authority	No	The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it).We also believe that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.

Organization	Yes or No	Question 2 Comment
Duke Energy	No	PRC-001-2 Requirement R1 states "Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area. [Violation Risk factor: High][Time Horizon: Operations Planning, Same-day Operations, Real-time Operations] . We believe that this requirement is redundant with TOP-006-3 except for the RC, so we suggest that R3 be rewritten to apply only to the RC. Since the phrases "its operating personnel" and "appropriate technical information" lack clarity needed for effective compliance, we propose that the rewrite should use wording similar to PRC-001-2 R1, as follows: "Each Reliability Coordinator shall be familiar with the purpose and limitations of protection system schemes applied in its area." Alternatively, since PRC-001-2 is now being revised to include just R1, TOP-006-3 could be revised to include the RC, TOP, BA and GOP, and PRC-001-2 could then be retired.
Response: The scope of the rapid revision process provided to the SDT focused solely on the issue of the information to be provided within the scope of TOP-006-3, Requirement R3, and does not provide the latitude suggested in the comments. No change made.		
ISO/RTO Council Standards Review Committee	No	This requirement applies to RC, TOP and BA, and these entities have no responsibilities for the design or proper operation of the protective relays. These entities are responsible for meeting their respective, applicable standard requirements. Some of the tasks these entities perform may require an understanding of the protective relays, and this is the information that needs to be provided to the operating personnel. We therefore suggest the following alternative language to R3: R3. Each RC, TOP, and BA shall provide its operating personnel with technical information concerning protective relays that is related to the respective entity's responsibility for meeting NERC standards.
Response: The SDT agrees with the interpretation of the nature of the requirement but does not believe that any additional clarity is supplied by the suggested wording. However, the SDT has made clarifying changes based on your comment and the comments of others. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with		

Organization	Yes or No	Question 2 Comment
appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
The United illuminating Company	No	UI agrees with the concept but disagrees with the phrasing, for which the entity has responsibility. Responsibility to do what? Responsibility to operate or responsibility to build, or responsibility to maintain etc. Was the intent to provide operating personnel information of protection systems deployed in the operating area which impacts the functions the Entity registered for.
Western Electricity Coordinating Council	No	Change does not provide the clarity that is desired. This would require determining "responsibility" for protection systems between RC and TOP. In its role as RC with a wide area view what is its responsibility for a protection system as opposed to the TOP. Within a TOP/BA footprint what Protections system "responsibility" is split between these two functions. A BA should be as interested in Generator Protection systems as any Transmission Protection systems. Do not believe this change is required as R3 already identified the word "appropriate" technical information.
Response: The SDT has clarified the wording of the requirement. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
Texas Reliability Entity	No	Responsibility is one aspect to consider but impact to the area of the responsible entities in question is as important to consider. With the proposed wording it appears that Reliability Coordinators and Balancing Authorities, in general, will not provide any technical information to their personnel concerning protective relays. Determining

Organization	Yes or No	Question 2 Comment
		the extent of "responsibility" as used here is ambiguous and difficult to determine. Does an SPS owned by a Generator Owner, Transmission Owner, or Distribution Provider meet the intent of the "responsibility" phrase for the Reliability Coordinator and Transmission Operator? Suggest changing the wording to "Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays WITHIN OR IMPACTING THEIR AREA(S)." The VSLs for R3 seem inappropriate in that a Lower VSL is applicable if the responsible entity failed to provide "any" appropriate technical information yet a Severe VSL is applicable if the responsible entity failed to provide "all" appropriate technical information. We suggest you revise this to use less ambiguous terminology.

Response: The SDT has clarified the wording of the requirement.

> **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.

Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective

Organization	Yes or No	Question 2 Comment
		concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	Yes	(1) We conceptually agree with the change but believe a further refinement is necessary. The changes indicate that each RC, TOP and BA is to provide "its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility". Because some debate could arise over what responsibility an RC, BA and TOP have, we think that this should be changed to "its operating personnel with appropriate technical information concerning protective relays in its RC Area, TOP Area and BA Area, respectively". RC Area, TOP Area, and BA Area are defined in the NERC glossary and provided more specificity over which protective relays. Otherwise, an auditor may interpret an RC or TOP having responsibility for protective relays outside of their areas because of the need to maintain a wide area view. Ultimately, the protective relays that each RC, TOP and BA has responsibility for are those in their RC Area, TOP Area and BA Area, respectively. (2) We agree with using "operating personnel" rather than the NERC defined term "System Operator". We believe that an RC, TOP or BA should be free to have technical experts that are knowledgeable about "appropriate technical information

Organization	Yes or No	Question 2 Comment
		concerning protective relays" and that are not System Operators to support compliance with this requirement. However, we suggest adding a footnote or another explanation to make clear that this is the intent of the drafting team. Otherwise, there will be opportunity for debate in the future over who constitutes "operating personnel".
Response: The SDT has clarified the wording of the requirement. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. The SDT agrees. This is what was intended.		
Southern Company	Yes	The SDT effectively addresses the ambiguity in R3 with respect to responsibility. However, we recommend that the SDT clarify what constitutes "appropriate technical information" concerning protective relays.
Response: Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. No change made.		
American Transmission Company	Yes	Since it is acklowledged there would be double jeopardy with PRC-001 R1 until Project 2007-03 Real-time Operations is approved and TOP-006 R3 is retired, ATC recommends deleting R3 of TOP-006-2 at this time and introducing the Reliability Coordinator as an Applicable Function within PRC-001-2 and include as part of PRC-001-2 R1.
Response: The SDT is not aware of any 'acknowledgement' that PRC-001-1.1, Requirement R1 presents a double jeopardy situation with regard to TOP-006-3, Requirement R3. The scope of the rapid revision process provided to the SDT focused solely on the issue of the information to be provided within the scope of TOP-006-3, Requirement R3, and does not provide the latitude suggested in the comment. No change made.		

Organization	Yes or No	Question 2 Comment
Muscatine Power and Water	Yes	Thank you
MRO NSRF	Yes	The NSRF agrees, thank you.
Bonneville Power Administration	Yes	
SPP Standards Review Group	Yes	
Independent Electricity System Operator	Yes	
Lakeland Electric	Yes	
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	
Essential Power, LLC	Yes	
Clark Public Utilities	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Kansas City Power & Light	Yes	

Organization	Yes or No	Question 2 Comment
Response: Thank you for your support.		

3. The SDT has supplied suggested Time Horizons for all requirements. Do you agree with these assignments? If not, please provide a detailed explanation and suggested changes.

Summary Consideration: In keeping with the stated purpose of the Reliability Standard, the SDT has changed the Time Horizon for Requirements R3 and R4 to Real-time Operations.

Organization	Yes or No	Question 3 Comment
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	No	Since the purpose of the standard is "to ensure critical reliability parameters are monitored in real-time", we question if R4 should have Operations Planning and Same-day Operations time horizons. The purpose of the requirement is to "predict the system's near-term load pattern". Given the purpose, we can deduce that this near-term time frame may be intended for the Real-time Operations horizon which covers within one hour of the actual operation.
Response: The SDT agrees and has made the change to the Time Horizon for Requirement R4 so that it only applies to Real-time Operation.		
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
Kansas City Power & Light	No	The Requirement 3 time horizon is "Operations Planning" but the measure for R3 is written like the time horizon should include "Same-day Operation" and "Real-time Operations". It is recommended to modify R3 to reflect the purpose of the standard which is to monitor system conditions in real time.
Response: The SDT agrees and has made the change to the Time Horizon for Requirement R3 so that it only applies to Real-time		

Organization	Yes or No	Question 3 Comment
Operations.		
Muscatine Power and Water	Yes	Thank you
MRO NSRF	Yes	The NSRF agrees, thank you.
Bonneville Power Administration	Yes	
Southwest Power Pool Regional Entity	Yes	
Dominion	Yes	
Duke Energy	Yes	
ISO/RTO Council Standards Review Committee	Yes	
Western Electricity Coordinating Council	Yes	
SPP Standards Review Group	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Lakeland Electric	Yes	

Organization	Yes or No	Question 3 Comment
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	
Essential Power, LLC	Yes	
The United illuminating Company	Yes	
Texas Reliability Entity	Yes	
American Transmission Company	Yes	
Clark Public Utilities	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Northeast Power Coordinating Council	Yes	
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Response: Thank you for your support.		

4. The SDT has supplied an Implementation Plan for this project. Do you agree with this plan? If not, please provide a detailed explanation and suggested changes.

Summary Consideration: The only negative response supplied here has no detailed explanation provided and refers to question 5. No changes were made due to comments to this question.

Organization	Yes or No	Question 4 Comment
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
MRO NSRF	Yes	The NSRF agrees, thank you.
Muscatine Power and Water	Yes	Thank you
Bonneville Power Administration	Yes	
Southwest Power Pool Regional Entity	Yes	
Dominion	Yes	
Duke Energy	Yes	
ISO/RTO Council Standards Review Committee	Yes	
Western Electricity	Yes	

Organization	Yes or No	Question 4 Comment
Coordinating Council		
SPP Standards Review Group	Yes	
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Lakeland Electric	Yes	
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	
Essential Power, LLC	Yes	
The United illuminating Company	Yes	
American Transmission Company	Yes	

Organization	Yes or No	Question 4 Comment
Clark Public Utilities	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Kansas City Power & Light	Yes	
Northeast Power Coordinating Council	Yes	
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Response: Thank you for your support.		

5. If you have any other comments on this Standard that you haven't already mentioned above, please provide them here keeping in mind the limited scope of this rapid development project:

Summary Consideration: The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03, which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

No new changes were made due to comments to this question.

Organization	Yes or No	Question 5 Comment
Bonneville Power Administration		BPA thanks you for the opportunity to comment on the Rapid Revision of TOP-006 and supports the standard as written with no other comments or concerns.
Response: Thank you for your support.		
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Northeast Power Coordinating Council		CAN-0026 dated Dec. 9, 2011 should be withdrawn because it expanded the scope to include protective relays regardless of ownership or maintenance responsibility that may impact the entity.
Response: CANs are reviewed periodically and appropriate actions, such as withdrawal, are made as new standards and requirements go into effect.		
Kansas City Power & Light		Clarifying R3 for equipment an entity is responsible for was successfully completed. However, the introduciton of the measure has confused the intent for R3. Suggest

Organization	Yes or No	Question 5 Comment
		modifying R3 to make it clear this is for operator awareness of real-time operating conditions:Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning a loss or compromise of functional operation of protective relays for which the entity has responsiblity.
Response: The SDT has made a clarifying change to the wording. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
Dominion		Dominion suggests in M3 where "Transmission Operators" is referenced this be changed to read as "Transmission Operator(s)".
Response: The SDT believes that the two wordings are identical and, thus, no change is needed.		
Western Electricity Coordinating Council		In 1.1 the GO is required to inform its Host BA of all generation resources available for use, and in 1.3 the BA is required to inform its RC and TOPs of all generation resources available for use. Is there any need for other BAs to be informed of generation resources available for use?
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use.		
MRO NSRF		In the Table of Compliance Elements under the R3 row, it appears the criteria for Lower VSL and Severe VSL are the same. Currently in the Lower VSL column, it states the responsible entity failed to provide any of the information; and, in the severe, it states the responsible entity failed to provide all of the information. If an entity fails to provide any of the information, there is a perception they can't provide any of the

Organization	Yes or No	Question 5 Comment
		information at all, which is very similar to failing to provide all. Recommend the word "any" be changed to "some" in the Lower VSL column.
Muscatine Power and Water		MPW would like to point out that in the Table of Compliance Elements under the R3 row, it appears the criteria for Lower VSL and Severe VSL are the same. Currently in the Lower VSL column, it states the responsible entity failed to provide any of the information; and, in the severe, it states the responsible entity failed to provide all of the information. If an entity fails to provide any of the information, there is a perception they can't provide any of the information at all, which is very similar to failing to provide all. MPW recommends the word "any" be changed to "some" in the Lower VSL column.

Response: Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL		The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission

Organization	Yes or No	Question 5 Comment
		Transmission Operator Area, and the Balancing Authority to their operating personnel.
Progress Energy		PGN supports the comments submitted by Duke
Response: Please see responses provided to Duke comments in questions 1 – 4.		
Oklahoma Gas & Electric		Regarding R3 and M3, it might be appropriate to provide more information on what is considered "appropriate technical information". Can we assume this is related to the requirements in the PRC-001 standard?
Response: Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. No change made.		
Georgia System Operations Corporation		The industry and the NERC Board have already approved retiring TOP-006. TOP-001 through TOP-006 are going to be replaced with new versions of TOP-001 through TOP-003. The new versions have already been filed with FERC and are pending FERC's approval. No additional time should be spent on this interpretation for TOP-006 by NERC or by the industry. This project should be closed.
Response: The new versions of TOP-001 through TOP-003 have been approved by the Board of Trustees, but have not yet been filed with FERC due to coordination issues with other projects. Once filed, FERC is under no time deadline to respond to the filing. In addition, Project 2007-03 has a 24-month implementation time frame. Therefore, the Standards Committee authorized the rapid revision project commented on here. No change made.		
PPL Corporation NERC Registered Affiliates		The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee," specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards

Organization	Yes or No	Question 5 Comment
		Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document entitled Drafting Team Guidelines that does include "default language" to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. If suggested language provided in comments 1 and 2 are adopted, Measures for R1, R1.2, R1.3 and R3 would need to be revised to be consistent with the revised language. The VSLs for R3 seem to be reversed (i.e. failure to provide any info should be Severe and failure to provide all info should be Lower).

Response: The SDT did provide the default language. No change made.

Measures have been updated as needed for changes to the requirements.

Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL		The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective

Organization	Yes or No	Question 5 Comment
		their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel. Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
SERC OC Standards Review Group		The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee", specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document entitled Drafting Team Guidelines that does include "default language" to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. The VSLs for R3 seem to be reversed (ie. failure to provide any info should be Severe and failure to provide all info should be Lower). This appears to have been in error since the initial version.
Tennessee Valley Authority		The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee", specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document entitled Drafting Team Guidelines that does include "default language" to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. The VSLs for R3 seem to be reversed (ie. failure to provide any info should be Severe

Organization	Yes or No	Question 5 Comment
		and failure to provide all info should be Lower). This appears to have been in error since the initial version.

Response: The SDT did provide the default language. No change made.

-Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL		The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.

Texas Reliability Entity		There is not a Measurement for Requirement 6.

Organization	Yes or No	Question 5 Comment
		Should “Complaint” be added in the “Compliance Monitoring and Assessment Processes” section?
Response: It is not within the scope of the SDT to supply a measurement for Requirement R6 under the rapid revision process. No change made. ‘Complaint’ is already included in that section. No change made.		
SPP Standards Review Group		While we like what the SDT has done in providing clarification in R1.2, 1.3 and 3, we feel there are other issues that need to be addressed in Requirement 3. While the SDT is working on Requirement 3, it is an excellent time to go ahead and address these concerns. We have listed them below. Recognizing that these issues may be beyond the scope of the SAR in responding to the request for clarification from FMPP, these items are worthy of consideration. We feel that while a team is assembled to address other issues in the standard, that these specific issues should also be reviewed as well. The VSLs for R3 appear to need some work. The lack of providing ‘any’ protective relay information in the Low VSL is actually worse than not providing ‘all’ the protective relay information in the Severe VSL. We suggest replacing ‘any’ in the Low VSL with ‘some’.The use of the term operating personnel gives us concern in determining what is the scope of that audience. Typically, auditors look at System Operators as being that group to which the information is addressed. However, on occasion, an auditor will include others in that category such as plant operators, field personnel, etc. We need clarification on exactly what is the scope of operating personnel. If it is intended to be only the System Operators, that is what the requirement should say. If not, we need to understand what is the breadth of personnel to include. We also have concerns about the potential for expanding the obligations of System Operators to inform others rather than being the target of that training/information. This is based upon the use of operator logs and voice recordings as evidence that the dissemination of information has actually taken place. We would also ask the SDT if they could clarify that the information provided in R3 is training information and not real-time operating information regarding serviceability of

Organization	Yes or No	Question 5 Comment
		protective relay schemes.Additionally, we have concerns regarding the scope of the technical information called for in the requirement , especially with regards to what is 'appropriate'. The SDT's interpretation of and our interpretation of what is appropriate may be different. We suggest that the SDT eliminate the ambiguity and provide a defined scope of what information should be included.
Response: SPP is correct that the indicated items are not within the scope provided to the SDT under the rapid revision process. Such changes can only be undertaken through the submittal of a SAR addressing the specific items, and the SDT encourages SPP to pursue these changes in such a manner. No change made.		

END OF REPORT

EXHIBIT E

Interpretation 2010-INT-01
Rapid Revision of TOP-006-2 for FMPP

Related Files

Status:
The standard and implementation plan were adopted by the Board of Trustees on November 7, 2012.

Purpose/Industry Need:
Ask for clarification for Requirement 1.2 for reporting responsibility and Requirement 3 for technical information responsibility.

Interpretation Process:
In accordance with the Reliability Standards Development Procedure, the interpretation must be posted for a 30-day pre-ballot review, and then balloted. There is no public comment period for an interpretation. Balloting will be conducted following the same method used for balloting standards. If the interpretation is approved by its ballot pool, then the interpretation will be appended to the standard and will become effective when adopted by the NERC Board of Trustees and approved by the applicable regulatory authorities. The interpretation will remain appended to the standard until the standard is revised through the normal standards development process. When the standard is revised, the clarifications provided by the interpretation will be incorporated into the revised standard.

Draft	Action	Dates	Results	Consideration of Comments
Draft 2 **TOP-006-3** Clean **(17)**| Redline **(18)**| Redline to Last Approved **(19)** **Supporting Documents:** Implementation Plan **(20)** SAR **(21)** VRF/VSL Justification **(22)**	Recirculation Ballot Info **(23)** Vote>>	09/12/12 - 09/21/12 (closed)	Updated Summary **(24)** Ballot Results **(25)**	
Draft 1 **TOP-006-3** Clean **(4)**| Redline **(5)**	Initial Ballot Info **(10)**	07/20/12 - 07/30/12 (closed)	Summary **(12)**	

Supporting Documents: Unofficial Comment Form (Word) **(6)** Implementation Plan **(7)** SAR **(8)** VRF/VSL Justification **(9)**	Vote>>		Ballot Results **(13)** Non-binding Poll Results **(14)**	
	Comment Period Info **(11)** Submit Comments>>	06/14/12 - 07/30/12 (closed)	Comments Received **(15)**	Consideration of Comments **(16)**
	Join Ballot Pool>>	06/14/12 - 07/13/12 (closed)		
FMPP Interpretation of TOP-006-2 R1.2 and R3 Request for Interpretation **(1)** Interpretation **(2)**	Recirculation Ballot			
	Initial Ballot			
	Pre-ballot Window Info **(3)** | Join>>	03/05/10 - 04/05/10 (closed)		

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Note: an Interpretation cannot be used to change a standard.

Request for an Interpretation of a Reliability Standard
Date submitted: January 20, 2010
Date accepted: January 20, 2010
Contact information for person requesting the interpretation:
Name: Thomas E Washburn
Organization: Florida Municipal Power Pool
Telephone: 407-384-4066
E-mail: twashburn@ouc.com
Identify the standard that needs clarification:
Standard Number (include version number): TOP-006-2
Standard Title: Monitoring System Conditions
Identify specifically what requirement needs clarification:
Requirement Number and Text of Requirement: R1.2 Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use. R3 Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel. **Clarification needed:** For Requirement 1.2, since the BA is not responsible for transmission, is the Balancing Authority responsible for reporting generation resources available for use and Transmission Operator responsible for reporting transmission resources that are available for use? For Requirement 3, does “appropriate technical information concerning protective relays” refer to protective relays for which the entity has responsibility?
Identify the material impact associated with this interpretation:
Identify the material impact to your organization or others caused by the lack of clarity or an incorrect interpretation of this standard. Not having the correct interpretation of this requirement could cause a BA only (BA that is not a TOP) to be found non-compliant.

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Request for an Interpretation of a Reliability Standard	
Date submitted: January 20, 2010	
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Name:	Thomas E Washburn
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Telephone:	407-384-4066
E-mail:	twashburn@ouc.com
Identify the standard that needs clarification:	
Standard Number (include version number):	TOP-006-2
Standard Title:	Monitoring System Conditions
Identify specifically what requirement needs clarification:	

Requirement Number and Text of Requirement:

R1.2 Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.

R3 Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.

Clarification needed:

For Requirement 1.2, since the BA is not responsible for transmission, is the Balancing Authority responsible for reporting generation resources available for use and Transmission Operator responsible for reporting transmission resources that are available for use?

For Requirement 3, does “appropriate technical information concerning protective relays” refer to protective relays for which the entity has responsibility?

Identify the material impact associated with this interpretation:

Identify the material impact to your organization or others caused by the lack of clarity or an incorrect interpretation of this standard.

Not having the correct interpretation of this requirement could cause a BA only (BA that is not a TOP) to be found non-compliant.

Interpretation 2010-01: Response to Request for an Interpretation of TOP-006-2, Requirements R1.2 and R3, for the Florida Municipal Power Pool
The following interpretation of TOP-006-2 — Monitoring System Conditions, Requirements R1.2 and R3, was developed by the Project 2007-03 (Real-time Operations) drafting team.
Requirement Number and Text of Requirement
R1.2. Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use. **R3.** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.
Question 1
For R1.2: 1) Is the Balancing Authority responsible for reporting generation resources available for use? 2) Is the Transmission Operator responsible for reporting transmission resources that are available for use?
Response 1
In the context of this requirement, the drafting team deems the answer to both questions is "yes."
Question 2
For R3: Does "appropriate technical information concerning protective relays" refer to protective relays for which the entity has responsibility?
Response 2
No. The drafting team believes the intent of Requirement R3 is that all operating personnel of each referenced applicable entity are informed of the relevant characteristics (appropriate technical information) of the protective relays that may impact that entity.

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Standards Announcement

Ballot Pool and Pre-ballot Window
March 5–April 5, 2010

Now available at: https://standards.nerc.net/BallotPool.aspx

Interpretation 2010-01: Interpretation of TOP-006-2 for the Florida Municipal Power Pool (FMPP)

An interpretation of standard TOP-006-2 — Monitoring System Conditions, Requirements R1.2 and R3, for FMPP is posted for a 30-day pre-ballot review. Registered Ballot Body members may join the ballot pool to be eligible to vote on this interpretation **until 8 a.m. Eastern on April 5, 2010**.

During the pre-ballot window, members of the ballot pool may communicate with one another by using their "ballot pool list server." (Once the balloting begins, ballot pool members are prohibited from using the ballot pool list servers.) The list server for this ballot pool is: bp-2010-01_RFI_FMPP_in@nerc.com.

Next Steps

Voting will begin shortly after the pre-ballot review closes.

Project Background

FMPP requested clarification on Balancing Authority and Transmission Operator reporting responsibilities for Requirement R1.2 and requested clarification regarding the phrase "appropriate technical information concerning protective relays" in Requirement R3.

The request and interpretation can be found on the project page:
http://www.nerc.com/filez/standards/Interp2010-01_Interpretation_TOP-006-2_FMPP.html

Standards Development Process

The Reliability Standards Development Procedure contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance,
please contact Shaun Streeter at shaun.streeter@nerc.net or at 609.452.8060.

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. Standards Committee approved rapid development process on January 11, 2012.

Proposed Action Plan and Description of Current Draft:
The Standards Committee approved a rapid revision process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post for comment and initial ballot.	2Q12
2. Post for recirculation ballot.	3Q12
3. Submit to BOT.	4Q12

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

There are no new or revised definitions proposed in this standard revision.

A. Introduction

1. **Title:** **Monitoring System Conditions**
2. **Number:** TOP-006-3
3. **Purpose:** To ensure critical reliability parameters are monitored in real-time.
4. **Applicability:**
   - **4.1. Functional Entities**
     - **4.1.1** Transmission Operators
     - **4.1.2** Balancing Authorities
     - **4.1.3** Generator Operators
     - **4.1.4** Reliability Coordinators
5. **(Proposed) Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator and its Transmission Operator(s) of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning

protective relays for which the entity has responsibility. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]

Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operation, Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement 1.1)

M2. Each Transmission Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. (Requirement 1.2)

M3. Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and its Transmission Operators of all generation resources available for use. (Requirement 1.3)

M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to,

computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement 2.

M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays for which they have responsibility. (Requirement 3)

M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement 4)

M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement 5)

M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement 7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

The Regional Entity shall serve as the Compliance Enforcement Authority (CEA) unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases the ERO or a Regional Entity approved by FERC or other applicable governmental authority shall serve as the CEA.

1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure 3.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure 4, 5, 7 and 8

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure 6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- 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	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority.
R1.1	Real-time Operations	Medium	N/A	N/A	N/A	The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use.
R1.3	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator and its Transmission

						Operators of all generation resources available for use.
R2	Real-time Operations	High	N/A	The responsible entity monitors the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, but is not aware of the status of rotating and static reactive resources.	The responsible entity fails to monitor all of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of all rotating and static reactive resources.	The responsible entity fails to monitor any of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The responsible entity failed to provide any of the appropriate technical information concerning protective relays for which it has responsibility to their operating personnel.	N/A	N/A	The responsible entity failed to provide all of the appropriate technical information concerning protective relays for which it has responsibility to their operating personnel.
R4	Operations Planning, Same-day Operations, Real-time Operations	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern, but not both.	The responsible entity failed to have both weather forecasts and past load patterns, available to predict the system's near-term load pattern.
R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but does not have indication of the need for corrective	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.

					action.	
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March 23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	TBD	Rapid revision to accommodate interpretation request for Requirements R1.2 & R3	Changes to bring document format to new guidelines. Changes to Requirements R1.2 & R3. Added Time Horizons.

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. Standards Committee approved rapid development process on January 11, 2012.

Proposed Action Plan and Description of Current Draft:
The Standards Committee approved a rapid revision process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post for comment and initial ballot.	2Q12
2. Post for recirculation ballot.	3Q12
3. Submit to BOT.	4Q12

Please note the yellow and green highlighted material.

The redline changes highlighted in yellow are changes being made in response to the rapid revision. The SDT is soliciting your feedback on this material.

The redline updates highlighted in green are updates that are being made to bring the standard up to the current boiler plate wording approved by the Standards Committee and to incorporate the VRF/VSLs that have been approved by the NERC Board. The SDT is not soliciting feedback on this material.

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

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   - **4.1. Functional Entities**
     - **4.1.1** Transmission Operators
     - **4.1.2** Balancing Authorities
     - **4.1.3** Generator Operators
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5. **(Proposed) Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

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R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator ~~and Balancing Authority~~ shall inform the Reliability Coordinator and other affected ~~Balancing Authorities and~~ Transmission Operators of all ~~generation and~~ transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator and its Transmission Operator(s) of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility~~to their operating personnel~~. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]

> Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning, Same-day Operation, Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement 1.1)

M2. Each Transmission Operator ~~and Balancing Authority~~ shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected ~~Balancing Authorities and~~ Transmission Operators of all ~~generation and~~ transmission resources available for use. (Requirement 1.2)

~~**M2.**~~**M3.** Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and its Transmission Operators of all generation resources available for use. (Requirement 1.3)

M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement 2.

~~M3.~~M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays for which they have responsibility. (Requirement 3)

~~M4.~~M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement 4)

~~M5.~~M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement 5)

~~M6.~~M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement 7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance ~~Monitoring Responsibility~~ Enforcement Authority

~~Regional Reliability Organizations shall be responsible for compliance monitoring.~~ The Regional Entity shall serve as the Compliance Enforcement Authority (CEA) unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases the ERO or a Regional Entity approved by FERC or other applicable governmental authority shall serve as the CEA.

~~**Compliance Monitoring and Reset Time Frame**~~

~~One or more of the following methods will be used to assess compliance:~~

- ~~Self-certification (Conducted annually with submission according to schedule.)~~
- ~~Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)~~
- ~~Periodic Audit (Conducted once every three years according to schedule.)~~
- ~~Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The entity will have up to 30~~

~~days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be considered by the Compliance Monitor on a case-by-case basis.)~~

~~The Performance-Reset Period shall be 12 months from the last finding of non-compliance.~~

1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator ~~and Balancing Authority~~ shall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure 3.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure ~~3~~4, 5. ~~5~~7 and ~~6~~8.

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure ~~4~~6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- Compliance Investigation
- Self-Reporting

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	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority.
R1.1	Real-time Operations	Medium	N/A	N/A	N/A	The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator and other affected ~~Balancing Authorities and~~ Transmission Operators of all ~~generation and~~ transmission resources available for use.
R1.3	Real-time	Medium	N/A	N/A	N/A	The responsible entity failed to inform its

	Operations					Reliability Coordinator and its Transmission Operators of all generation resources available for use.
R2	Real-time Operations	High	N/A	The responsible entity monitors the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, but is not aware of the status of rotating and static reactive resources.	The responsible entity fails to monitor all of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of all rotating and static reactive resources.	The responsible entity fails to monitor any of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The responsible entity failed to provide any of the appropriate technical information concerning protective relays for which it has responsibility to their operating personnel.	N/A	N/A	The responsible entity failed to provide all of the appropriate technical information concerning protective relays for which it has responsibility to their operating personnel.
R4	Operations Planning, Same-day Operations, Real-time Operations	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern, but not both.	The responsible entity failed to have both weather forecasts and past load patterns, available to predict the system's near-term load pattern.
R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but does not	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating

					have indication of the need for corrective action.	conditions.
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March 23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	TBD	Rapid revision to accommodate interpretation request for Requirements R1.2 & R3	Changes to bring document format to new guidelines. Changes to Requirements R1.2 & R3. Added Time Horizons.

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Project 2010-INT-01 TOP-006-2 for FMPP

Unofficial Comment Form

Please **DO NOT** use this form for submitting comments. Please use the electronic form to submit comments on TOP-006-3. The electronic comment form must be completed by 8 p.m. ET July 30, 2012. If you have questions please contact Ed Dobrowolski at ed.dobrowolski@nerc.net or by telephone at 1.609.947.3673.

Project 2010-INT-01 TOP-006-2 for FMPP

Background Information

This posting is soliciting formal comment.

The Standards Committee approved a rapid development process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

The RTOSDT has revised Requirement R1.2 so that it applies only to Transmission Operators and transmission information.

A new Requirement R1.3 was created, and patterned after Requirement R1.2, to apply only to Balancing Authorities and generation information. The VRF for the new Requirement R1.3 is the same as the approved VRF for the original Requirement R1.2.

Requirement R3 was altered to show that entities need only supply information for equipment they are responsible for and not for other entities equipment.

Measures, Data Retention, and VSLs have been changed as appropriate and are patterned after the already approved items in those categories.

Time Horizons were not supplied as part of TOP-006-2 so all requirements have been assigned Time Horizons.

You do not have to answer all questions. Enter All Comments in Simple Text Format. Bullets, numbers, and special formatting will not be retained.

Insert a "check" mark in the appropriate boxes by double-clicking the gray areas.

The scope of this project includes:

1. The SDT has altered Requirement R1.2 to apply solely to Transmission Operators and transmission information while creating a new Requirement R1.3 to apply solely to Balancing Authorities and generation information. Do you agree with these changes? This includes accompanying Measures, data retention, and VSLs. If not, please provide a detailed explanation and suggested changes.

   ☐ Yes

   ☐ No

   Comments:

2. The SDT has revised Requirement R3 to show that entities need only supply information for equipment they are responsible for and not for others equipment. Do you agree with this change? If not, please provide a detailed explanation and suggested changes.

   ☐ Yes

   ☐ No

   Comments:

3. The SDT has supplied suggested Time Horizons for all requirements. Do you agree with these assignments? If not, please provide a detailed explanation and suggested changes.

   ☐ Yes

   ☐ No

   Comments:

4. The SDT has supplied an Implementation Plan for this project. Do you agree with this plan? If not, please provide a detailed explanation and suggested changes.

   ☐ Yes

   ☐ No

   Comments:

5. If you have any other comments on this Standard that you haven't already mentioned above, please provide them here keeping in mind the limited scope of this rapid development project:

   Comments:

Project 2010-INT-01 - TOP-006-2 for FMPP
Implementation Plan

Requested Approvals

- TOP-006-3 – Monitoring System Conditions

Requested Retirements

- TOP-006-2 – Monitoring System Conditions

Prerequisite Approvals

- None

Revisions to Defined Terms in the NERC Glossary

- None

Background

The Standards Committee approved a rapid development process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

General Considerations

Requirement R1.2 was revised to show that Transmission Operators will be responsible for transmission information. Requirement R1.3 was created to clarify that the Balancing Authorities provide generation information to its Reliability Coordinator and Transmission Operator but not to other Balancing Authorities. (This eliminates the need for CAN-0028.) These changes are consistent with the roles and responsibilities for these entities in Functional Model v5. The Measures, Data Retention, and VSLs have been adjusted accordingly.
Requirement R3 was clarified to show that entities will only be responsible for providing relay information for equipment that they are responsible for. (This eliminates the need for CAN-0026.)
Time Horizons have been added for all requirements.
Formatting has been brought up to the latest guidelines.

Applicable Entities

- Transmission Operators
- Balancing Authorities
- Generator Operators
- Reliability Coordinators

Effective Dates

In those jurisdictions where regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

Already Approved Standard	Proposed Replacement Requirement(s)
TOP-006-2 **R1.2** Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.	TOP-006-3 R1.2 Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*] R1.3 Each Balancing Authority shall inform its Reliability Coordinator and its Transmission Operators of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]
Notes: The RTOSDT recommends replacing R1.2 with a revised R1.2 and a new R1.3 as shown. This will allow for the proper allocation of responsibility for the information cited as per Functional Model v5.	

Already Approved Standard	Proposed Replacement Requirement(s)
TOP-006-2 **R3** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	TOP-006-3 **R3** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]
Notes: The RTOSDT recommends the insertion of the phrase 'for which the entity has responsibility' which will make it clear that an entity can only supply information for equipment that they have responsibility for and not for equipment that is another entity's responsibility.	

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Standards Authorization Request Form

When completed, email this form to:
Andy.Rodriquez@nerc.net
For questions about this form or for assistance in completing the form, call Andy Rodriquez at 404-446-2579.

NERC welcomes suggestions to improve the reliability of the bulk power system through improved reliability standards. Please use this form to submit your request to propose a new or a revision to a NERC's Reliability Standard.

Request to propose a new or a revision to a Reliability Standard			
Title of Proposed Standard:	TOP-006-3 – Monitoring System Conditions		
Date Submitted:	February 3, 2012		
SAR Requester Information			
Name:	James Case, Chair of Project 2007-03 Real-time Operations		
Organization:	Entergy		
Telephone:	(601) 985-2345	E-mail:	jcase@entergy.com
SAR Type (Check as many as applicable)			
☐ New Standard		☐ Withdrawal of existing Standard	
X Revision to existing Standard		☐ Urgent Action	

SAR Information
Industry Need (What is the industry problem this request is trying to solve?):
There is a need for additional clarity surrounding Requirements R1.2 and R3 in TOP-006-2 as pointed out in an interpretation request from the Florida Municipal Power Pool.
Purpose or Goal (How does this request propose to address the problem described above?):
This SAR proposes to modify TOP-006-2, Requirements R1.2 and R3 to provide the needed clarity in the subject requirements.

SAR Information
Identify the Objectives of the proposed standard's requirements (What specific reliability deliverables are required to achieve the goal?):
Address the need for additional clarity in the subject requirements as per the interpretation request.
Brief Description (Provide a paragraph that describes the scope of this standard action.)
Changes will be made to Requirements R1.2 and R3 to bring needed clarity to the standard.
Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR. Also provide a justification for the development or revision of the standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the standard action.)
Requirement R1.2 will be revised to apply solely to the Transmission Operator (as per the Functional Model v5) for dealing with transmission information. Requirement R1.3 will be created to apply solely to the Balancing Authority (as per the Functional Model v5) for delaing with generation information. Requirement R3 will be revised to state that information can only be provided by a functional entity that it has responsibility for. The SDT will also make conforming changes to the standard to add missing Time Horizons and to bring the compliance elements into conformance with the latest standard template.

Reliability Functions		
The Standard will Apply to the Following Functions (Check each one that applies.)		
☐	Regional Reliability Organization	Conducts the regional activities related to planning and operations, and coordinates activities of Responsible Entities to secure the reliability of the Bulk Electric System within the region and adjacent regions.
X	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
X	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and

Reliability Functions		
		supports Interconnection frequency in real time.
☐	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
☐	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
☐	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
☐	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
☐	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
☐	Transmission Owner	Owns and maintains transmission facilities.
X	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
☐	Distribution Provider	Delivers electrical energy to the End-use customer.
☐	Generator Owner	Owns and maintains generation facilities.
X	Generator Operator	Operates generation unit(s) to provide real and reactive power.
☐	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
☐	Market Operator	Interface point for reliability functions with commercial functions.
☐	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles	
Applicable Reliability Principles (Check all that apply).	
X	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner

Reliability and Market Interface Principles	
	to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
X	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
X	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
☐	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
☐	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
X	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
X	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
☐	8. Bulk power systems shall be protected from malicious physical or cyber attacks.

Does the proposed Standard comply with all of the following Market Interface Principles?	Enter (yes/no)
1. A reliability standard shall not give any market participant an unfair competitive advantage.	Y
2. A reliability standard shall neither mandate nor prohibit any specific market structure.	Y
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard.	Y
4. A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards.	Y

Related Standards	
Standard No.	Explanation
	N/A

Related Standards	

Related SARs	
SAR ID	Explanation
	N/A

Regional Variances	
Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
RFC	
SERC	
SPP	
WECC	

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Violation Risk Factor and Violation Severity Level Assignments

Project 2010-INT-01 TOP-006-2 for FMPP

Violation Risk Factor and Violation Severity Level Assignments

This document provides the drafting team's justification for assignment of violation risk factors (VRFs) and violation severity levels (VSLs) for new Requirement R1.3 in TOP-006-3 – Monitoring System Conditions. None of the other existing, approved values are being changed.

The new requirement is assigned a VRF and a set of one or more VSLs. These elements support the determination of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the ERO Sanction Guidelines.

Justification for Assignment of Violation Risk Factors in TOP-006-3, Requirement R1.3:

The SDT applied the following NERC criteria when proposing VRFs for the requirements in TOP-006-3, Requirement R1.3:

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, 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. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system; or, a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to 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 planning requirement that is administrative in nature.

The SDT also considered consistency with the FERC Violation Risk Factor Guidelines for setting VRFs:[1]

Guideline (1) — Consistency with the Conclusions of the Final Blackout Report

The Commission seeks to ensure that Violation Risk Factors assigned to Requirements of Reliability Standards in these identified areas appropriately reflect their historical critical impact on the reliability of the Bulk-Power System.

In the VSL Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System:[2]

- Emergency operations
- Vegetation management
- Operator personnel training
- Protection systems and their coordination
- Operating tools and backup facilities
- Reactive power and voltage control
- System modeling and data exchange
- Communication protocol and facilities
- Requirements to determine equipment ratings
- Synchronized data recorders
- Clearer criteria for operationally critical facilities
- Appropriate use of transmission loading relief

Guideline (2) — Consistency within a Reliability Standard

The Commission expects a rational connection between the sub-Requirement Violation Risk Factor assignments and the main Requirement Violation Risk Factor assignment.

[1] North American Electric Reliability Corp., 119 FERC ¶ 61,145, order on reh'g and compliance filing, 120 FERC ¶ 61,145 (2007) ("VRF Rehearing Order").
[2] Id. at footnote 15.

Guideline (3) — Consistency among Reliability Standards

The Commission expects the assignment of Violation Risk Factors corresponding to Requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

Guideline (4) — Consistency with NERC's Definition of the Violation Risk Factor Level

Guideline (4) was developed to evaluate whether the assignment of a particular Violation Risk Factor level conforms to NERC's definition of that risk level.

Guideline (5) — Treatment of Requirements that Co-mingle More Than One Obligation

Where a single Requirement co-mingles a higher risk reliability objective and a lesser risk reliability objective, the VRF assignment for such Requirements must not be watered down to reflect the lower risk level associated with the less important objective of the Reliability Standard.

The following discussion addresses how the SDT considered FERC's VRF Guidelines 2 through 5. The team did not address Guideline 1 directly because of an apparent conflict between Guidelines 1 and 4. Whereas Guideline 1 identifies a list of topics that encompass nearly all topics within NERC's Reliability Standards and implies that these requirements should be assigned a "High" VRF, Guideline 4 directs assignment of VRFs based on the impact of a specific requirement to the reliability of the system. The SDT believes that Guideline 4 is reflective of the intent of VRFs in the first instance and therefore concentrated its approach on the reliability impact of the requirements.

There are eleven requirements in TOP-001-2. None of the eleven requirements were assigned a "Lower" VRF. Requirements R1, R2, R4, R7, and R11 were assigned a "High" VRF while all of the other requirements were given a "Medium" VRF.

VRF for TOP-006-3, Requirement R1.3:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The sub-requirements all require similar performance and all have the same VRF of Medium. Therefore, there is consistency.
- FERC's Guideline 3 — Consistency among Reliability Standards. This new requirement is exactly analogous to the approved Requirement R1.2 that is assigned a Medium VRF. The only difference is that Requirement R1.2 applies to a Transmission Operator while the new Requirement R1.3 applies to the Balancing Authority.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to supply the cited information will not, by itself, lead to instability, separation, or cascading failures. Failure to provide this information could, however, 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. Thus, a Medium VRF is justified.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-006-3, Requirement R1.3 contains only one objective, therefore only one VRF was assigned.

Justification for Assignment of Violation Severity Levels for TOP-006-3, Requirement R1.3:
In developing the VSLs for Requirement R1.3 in TOP-006-3, the SDT anticipated the evidence that would be reviewed during an audit, and developed its VSLs based on the noncompliance an auditor may find during a typical audit. The SDT based its assignment of VSLs on the following NERC criteria:

Lower	Moderate	High	Severe
Missing a minor element (or a small percentage) of the required performance The performance or product measured has significant value as it almost meets the full intent of the requirement.	Missing at least one significant element (or a moderate percentage) of the required performance. The performance or product measured still has significant value in meeting the intent of the requirement.	Missing more than one significant element (or is missing a high percentage) of the required performance or is missing a single vital component. The performance or product has limited value in meeting the intent of the requirement.	Missing most or all of the significant elements (or a significant percentage) of the required performance. The performance measured does not meet the intent of the requirement or the product delivered cannot be used in meeting the intent of the requirement.

FERC's VSL guidelines are presented below, followed by an analysis of whether the VSLs proposed for Requirement R1.3 in TOP-006-3 meet the FERC Guidelines for assessing VSLs:

Guideline 1: Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance
Compare the VSLs to any prior levels of non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when levels of non-compliance were used.

Guideline 2: Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties
A violation of a "binary" type requirement must be a "Severe" VSL.
Do not use ambiguous terms such as "minor" and "significant" to describe noncompliant performance.

Guideline 3: Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement
VSLs should not expand on what is required in the requirement.

Guideline 4: Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations

. . . unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that assessing penalties on a per violation per day basis is the "default" for penalty calculations.

VSLs for TOP-006-3, Requirement R1.3:

R#	Compliance with NERC's VSL Guidelines	Guideline 1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	Guideline 2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	Guideline 3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	Guideline 4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations
R1.	Meets NERC's VSL guidelines – Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is exactly analogous to approved TOP-006-2, Requirement R1.2. That VSL is also based on a single violation and is binary. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Standards Announcement

Project 2010-INT-01 Rapid Revision of TOP-006 for FMPP

Ballot Pool Forming:	June 14 – July 13, 2012
Formal Comment Period Open:	June 14 – July 30, 2012

Upcoming:

Initial Ballot and Non-Binding Poll:	July 20 – July 30, 2012

Now Available

A formal comment period for the rapid revision of **TOP-006-3** – Monitoring System Conditions is open through 8 p.m. Eastern on Monday, July 30, 2012 and ballot pools are being formed through 8 a.m. Friday, July 13, 2012.

Two different types of changes are being made to TOP-006-3. Those changes have been highlighted in the redline version in either yellow or green. The redline changes highlighted in yellow are in response to the rapid revision of TOP-006-2. The redline updates highlighted in green are updates that are being made to bring the standard up to the current boiler plate wording approved by the Standards Committee and to incorporate the VRF/VSLs that have been approved by the NERC Board.

Instructions for Joining Ballot Pool

Two ballot pools are being formed. Registered Ballot Body members must join the first ballot pool to be eligible to vote in the balloting of standard TOP-006-3, and a second, separate ballot pool to be eligible to cast an opinion in the non-binding poll for the VRF and VSL for Requirements R1.3. Registered Ballot Body members may join each of the ballot pools at the following page: Join Ballot Pool.

During the pre-ballot window, members of the ballot pool may communicate with one another by using their "ballot pool list servers." (Once the balloting begins, ballot pool members are prohibited from using the ballot pool list server.) The ballot pool list servers for this ballot pool are:

Initial ballot: bp-2010-INT-01:TOP-006_in@nerc.com
Non-binding poll: bp-2010-INT-01_NB_in@nerc.com

The ballot pools are open **through 8 a.m. Eastern on Friday, July 13, 2012**.

Instructions for Commenting

A formal comment period is open through **8 p.m. Eastern on Monday, July 30, 2012.** Please use this electronic form to submit comments. If you experience any difficulties in using the electronic form, please contact Monica Benson at monica.benson@nerc.net. An off-line, unofficial copy of the comment form is posted on the project page.

Commenters and voters must submit comments through the electronic comment form. Due to modifications to NERC's balloting software, voters are no longer able to submit comments via the balloting software.

Next Steps

An initial ballot of the standard and non-binding poll of the VRF and VSL for Requirement R1.3 will be conducted beginning Friday, July 20, 2012 through 8 p.m. Eastern on Monday, July 30, 2012.

Background

Florida Municipal Power Pool (FMPP) submitted a request for interpretation of TOP-006-2 asking for clarification for Requirements R1.2 and Requirement R3. For Requirement R1.2, since the Balancing Authority is not responsible for transmission, FMPP asked if the Balancing Authority is responsible for reporting generation resources available for use and the Transmission Operator responsible for reporting transmission resources that are available for use. For Requirement R3, FMPP asked if the "appropriate technical information concerning protective relays" only refers to protective relays for which the entity has responsibility.

At the January 2012 meeting, the Standards Committee approved the interpretation be converted to a rapid revision.

Standards Development Process

The Standards Processes Manual contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance, please contact Monica Benson, Standards Process Administrator, at monica.benson@nerc.net or at 404-446-2560.

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NERC
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Standards Announcement

Project 2010-INT-01 Rapid Revision of TOP-006 for FMPP

Ballot Pool Forming:	June 14 – July 13, 2012
Formal Comment Period Open:	June 14 – July 30, 2012

Upcoming:

Initial Ballot and Non-Binding Poll:	July 20 – July 30, 2012

Now Available

A formal comment period for the rapid revision of **TOP-006-3** – Monitoring System Conditions is open through 8 p.m. Eastern on Monday, July 30, 2012 and ballot pools are being formed through 8 a.m. Friday, July 13, 2012.

Two different types of changes are being made to TOP-006-3. Those changes have been highlighted in the redline version in either yellow or green. The redline changes highlighted in yellow are in response to the rapid revision of TOP-006-2. The redline updates highlighted in green are updates that are being made to bring the standard up to the current boiler plate wording approved by the Standards Committee and to incorporate the VRF/VSLs that have been approved by the NERC Board.

Instructions for Joining Ballot Pool

Two ballot pools are being formed. Registered Ballot Body members must join the first ballot pool to be eligible to vote in the balloting of standard TOP-006-3, and a second, separate ballot pool to be eligible to cast an opinion in the non-binding poll for the VRF and VSL for Requirements R1.3. Registered Ballot Body members may join each of the ballot pools at the following page: Join Ballot Pool.

During the pre-ballot window, members of the ballot pool may communicate with one another by using their "ballot pool list servers." (Once the balloting begins, ballot pool members are prohibited from using the ballot pool list server.) The ballot pool list servers for this ballot pool are:

Initial ballot: bp-2010-INT-01:TOP-006_in@nerc.com
Non-binding poll: bp-2010-INT-01_NB_in@nerc.com

The ballot pools are open **through 8 a.m. Eastern on Friday, July 13, 2012**.

Instructions for Commenting

A formal comment period is open through **8 p.m. Eastern on Monday, July 30, 2012.** Please use this electronic form to submit comments. If you experience any difficulties in using the electronic form, please contact Monica Benson at monica.benson@nerc.net. An off-line, unofficial copy of the comment form is posted on the project page.

Commenters and voters must submit comments through the electronic comment form. Due to modifications to NERC's balloting software, voters are no longer able to submit comments via the balloting software.

Next Steps

An initial ballot of the standard and non-binding poll of the VRF and VSL for Requirement R1.3 will be conducted beginning Friday, July 20, 2012 through 8 p.m. Eastern on Monday, July 30, 2012.

Background

Florida Municipal Power Pool (FMPP) submitted a request for interpretation of TOP-006-2 asking for clarification for Requirements R1.2 and Requirement R3. For Requirement R1.2, since the Balancing Authority is not responsible for transmission, FMPP asked if the Balancing Authority is responsible for reporting generation resources available for use and the Transmission Operator responsible for reporting transmission resources that are available for use. For Requirement R3, FMPP asked if the "appropriate technical information concerning protective relays" only refers to protective relays for which the entity has responsibility.

At the January 2012 meeting, the Standards Committee approved the interpretation be converted to a rapid revision.

Standards Development Process

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Standards Announcement

Project 2010-INT-01 Rapid Revision of TOP-006 for FMPP

Initial Ballot and Non-Binding Poll Results

Now Available

An initial ballot of **TOP-006-3** – Monitoring System Conditions and a non-binding poll of the associated VRFs/VSLs concluded Monday, July 30, 2012.

Voting statistics for each ballot are listed below, and the Ballots Results page provides a link to the detailed results.

Approval	Non-binding Poll Results
Quorum: 80.39%	Quorum: 78.26%
Approval: 79.28%	Supportive Opinions: 76.07%

Next Steps

The drafting team will consider all comments submitted, and based on the comments will determine whether to make additional changes. If the drafting team decides to make substantive revisions, the drafting team will submit the revised standard and consideration of comments received for a quality review prior to posting for a parallel formal 30-day comment period and successive ballot.

Background

Florida Municipal Power Pool (FMPP) submitted a request for interpretation of TOP-006-2 asking for clarification for Requirements R1.2 and Requirement R3. For Requirement R1.2, since the Balancing Authority is not responsible for transmission, FMPP asked if the Balancing Authority is responsible for reporting generation resources available for use and the Transmission Operator responsible for reporting transmission resources that are available for use. For Requirement R3, FMPP asked if the "appropriate technical information concerning protective relays" only refers to protective relays for which the entity has responsibility.

At its January 2012 meeting, the Standards Committee authorized the Real-time Operations SDT to address the request for interpretation through a revision of the TOP-006-2 standard. The Standards

Committee, under its authority to do so in the NERC Standard Processes Manual, waived the initial 30-day comment period and directed the SDT to post the standard and SAR for a formal 45-day comment period and initial ballot. The Standards Committee has used the shorthand term 'rapid revision' process to refer to instances where it has its exercised its authority to waive the initial 30-day comment period. Generally, the projects being addressed in this manner are projects that are narrowly defined to address a specific issue, such as certain requests for interpretation.

Standards Development Process

The Standards Processes Manual contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance, please contact Monica Benson, Standards Process Administrator, at monica.benson@nerc.net or at 404-446-2560.

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Ballot Results

Ballot Name:	Project 2010-INT-01 TOP-006-2 for FMPP June 2012_in
Ballot Period:	7/20/2012 - 7/30/2012
Ballot Type:	Initial
Total # Votes:	291
Total Ballot Pool:	362
Quorum:	**80.39 % The Quorum has been reached**
Weighted Segment Vote:	79.28 %
Ballot Results:	**The drafting team will consider all comments submitted.**

Summary of Ballot Results

Segment	Ballot Pool	Segment Weight	Affirmative # Votes	Affirmative Fraction	Negative # Votes	Negative Fraction	Abstain # Votes	No Vote
1 - Segment 1.	98	1	56	0.8	14	0.2	8	20
2 - Segment 2.	10	0.6	5	0.5	1	0.1	1	3
3 - Segment 3.	80	1	42	0.792	11	0.208	9	18
4 - Segment 4.	25	1	18	0.9	2	0.1	3	2
5 - Segment 5.	79	1	41	0.837	8	0.163	13	17
6 - Segment 6.	52	1	32	0.821	7	0.179	5	8
7 - Segment 7.	0	0	0	0	0	0	0	0
8 - Segment 8.	8	0.6	5	0.5	1	0.1	0	2
9 - Segment 9.	1	0.1	0	0	1	0.1	0	0
10 - Segment 10.	9	0.7	4	0.4	3	0.3	1	1
Totals	**362**	**7**	**203**	**5.55**	**48**	**1.45**	**40**	**71**

Individual Ballot Pool Results

Segment	Organization	Member	Ballot	Comments
1	Ameren Services	Kirit Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Affirmative	
1	American Transmission Company, LLC	Andrew Z Pusztai	Affirmative	
1	Arizona Public Service Co.	Robert Smith	Abstain	
1	Associated Electric Cooperative, Inc.	John Bussman	Affirmative	
1	ATCO Electric	Glen Sutton	Negative	
1	Austin Energy	James Armke	Affirmative	
1	Avista Corp.	Scott J Kinney	Affirmative	

1	Balancing Authority of Northern California	Kevin Smith	Affirmative	
1	BC Hydro and Power Authority	Patricia Robertson	Abstain	
1	Beaches Energy Services	Joseph S Stonecipher	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	
1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Negative	
1	Bryan Texas Utilities	John C Fontenot	Affirmative	
1	CenterPoint Energy Houston Electric, LLC	John Brockhan	Affirmative	
1	Central Maine Power Company	Joseph Turano Jr.	Affirmative	
1	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Chang G Choi	Affirmative	
1	Clark Public Utilities	Jack Stamper	Affirmative	
1	Cleco Power LLC	Danny McDaniel	Affirmative	
1	Colorado Springs Utilities	Paul Morland	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Affirmative	
1	CPS Energy	Richard Castrejana	Affirmative	
1	Dairyland Power Coop.	Robert W. Roddy	Affirmative	
1	Dayton Power & Light Co.	Hertzel Shamash	Affirmative	
1	Deseret Power	James Tucker		
1	Dominion Virginia Power	Michael S Crowley	Negative	
1	Duke Energy Carolina	Douglas E. Hils	Negative	
1	El Paso Electric Company	Dennis Malone	Affirmative	
1	Empire District Electric Co.	Ralph F Meyer	Affirmative	
1	Entergy Services, Inc.	Edward J Davis		
1	FirstEnergy Corp.	William J Smith	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Affirmative	
1	Florida Power & Light Co.	Mike O'Neil		
1	Gainesville Regional Utilities	Richard Bachmeier	Affirmative	
1	Great River Energy	Gordon Pietsch		
1	Hoosier Energy Rural Electric Cooperative, Inc.	Bob Solomon		
1	Hydro One Networks, Inc.	Ajay Garg	Negative	
1	Imperial Irrigation District	Tino Zaragoza		
1	International Transmission Company Holdings Corp	Michael Moltane	Affirmative	
1	JEA	Ted Hobson		
1	KAMO Electric Cooperative	Walter Kenyon		
1	Kansas City Power & Light Co.	Michael Gammon	Negative	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	John W Delucca	Affirmative	
1	LG&E Energy Transmission Services	Bradley C. Young		
1	Lincoln Electric System	Doug Bantam	Affirmative	
1	Long Island Power Authority	Robert Ganley		
1	Lower Colorado River Authority	Martyn Turner		
1	Manitoba Hydro	Joe D Petaski		
1	MEAG Power	Danny Dees	Affirmative	
1	MidAmerican Energy Co.	Terry Harbour	Affirmative	
1	National Grid USA	Michael Jones	Affirmative	
1	Nebraska Public Power District	Cole C Brodine	Affirmative	
1	New York Power Authority	Bruce Metruck	Negative	
1	New York State Electric & Gas Corp.	Raymond P Kinney		
1	Northeast Utilities	David Boguslawski	Negative	
1	NorthWestern Energy	John Canavan		
1	NStar Gas and Electric	John Robertson	Negative	
1	Ohio Valley Electric Corp.	Robert Mattey	Affirmative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	Doug Peterchuck		
1	Oncor Electric Delivery	Jen Fiegel	Affirmative	
1	Orlando Utilities Commission	Brad Chase		
1	Pacific Gas and Electric Company	Bangalore Vijayraghavan		
1	PacifiCorp	Ryan Millard		
1	PECO Energy	Ronald Schloendorn	Abstain	
1	Platte River Power Authority	John C. Collins		
1	Portland General Electric Co.	John T Walker	Affirmative	
1	Potomac Electric Power Co.	David Thorne	Affirmative	
1	PowerSouth Energy Cooperative	Larry D Avery	Affirmative	
1	PPL Electric Utilities Corp.	Brenda L Truhe	Affirmative	
1	Progress Energy Carolinas	Brett A. Koelsch	Negative	
1	Public Service Company of New Mexico	Laurie Williams	Abstain	

1	Public Service Electric and Gas Co.	Kenneth D. Brown	Affirmative	
1	Public Utility District No. 1 of Okanogan County	Dale Dunckel	Abstain	
1	Public Utility District No. 2 of Grant County, Washington	Rod Noteboom	Abstain	
1	Puget Sound Energy, Inc.	Denise M Lietz	Affirmative	
1	Rochester Gas and Electric Corp.	John C. Allen	Negative	
1	Sacramento Municipal Utility District	Tim Kelley	Affirmative	
1	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L Blackwell	Negative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Snohomish County PUD No. 1	Long T Duong	Abstain	
1	South California Edison Company	Steven Mavis	Affirmative	
1	South Carolina Electric & Gas Co.	Tom Hanzlik	Affirmative	
1	Southern Company Services, Inc.	Robert A. Schaffeld	Affirmative	
1	Southwest Transmission Cooperative, Inc.	John Shaver	Affirmative	
1	Sunflower Electric Power Corporation	Noman Lee Williams	Affirmative	
1	Tennessee Valley Authority	Howell D Scott	Negative	
1	Trans Bay Cable LLC	Steven Powell	Affirmative	
1	Tri-State G & T Association, Inc.	Tracy Sliman	Affirmative	
1	Tucson Electric Power Co.	John Tolo		
1	Turlock Irrigation District	Esteban Martinez	Affirmative	
1	United Illuminating Co.	Jonathan Appelbaum	Negative	
1	Westar Energy	Allen Klassen	Affirmative	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Western Farmers Electric Coop.	Forrest Brock	Affirmative	
1	Xcel Energy, Inc.	Gregory L Pieper	Abstain	
2	Alberta Electric System Operator	Ken A Gardner		
2	BC Hydro	Venkataramakrishnan Vinnakota	Abstain	
2	Electric Reliability Council of Texas, Inc.	Cheryl Moseley	Affirmative	
2	Independent Electricity System Operator	Barbara Constantinescu	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
2	Midwest ISO, Inc.	Marie Knox		
2	New Brunswick System Operator	Alden Briggs	Negative	
2	New York Independent System Operator	Gregory Campoli		
2	PJM Interconnection, L.L.C.	stephanie monzon	Affirmative	
2	Southwest Power Pool, Inc.	Charles H. Yeung	Affirmative	
3	AEP	Michael E Deloach		
3	Alabama Power Company	Richard J. Mandes	Affirmative	
3	Ameren Services	Mark Peters	Affirmative	
3	APS	Steven Norris	Abstain	
3	Atlantic City Electric Company	NICOLE BUCKMAN	Affirmative	
3	Avista Corp.	Robert Lafferty		
3	BC Hydro and Power Authority	Pat G. Harrington	Abstain	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	
3	Central Electric Power Cooperative	Adam M Weber		
3	City of Austin dba Austin Energy	Andrew Gallo	Affirmative	
3	City of Bartow, Florida	Matt Culverhouse		
3	City of Farmington	Linda R Jacobson	Affirmative	
3	City of Garland	Ronnie C Hoeinghaus	Affirmative	
3	City of Green Cove Springs	Gregg R Griffin	Abstain	
3	City of Redding	Bill Hughes	Affirmative	
3	Cleco Corporation	Michelle A Corley	Affirmative	
3	Colorado Springs Utilities	Charles Morgan	Affirmative	
3	Consolidated Edison Co. of New York	Peter T Yost	Affirmative	
3	Consumers Energy	Richard Blumenstock	Affirmative	
3	CPS Energy	Jose Escamilla	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Detroit Edison Company	Kent Kujala	Affirmative	
3	Dominion Resources, Inc.	Connie B Lowe	Negative	
3	Duke Energy Carolina	Henry Ernst-Jr	Negative	
3	El Paso Electric Company	Tracy Van Slyke	Affirmative	
3	Entergy	Joel T Plessinger		
3	FirstEnergy Energy Delivery	Stephan Kern	Affirmative	
3	Florida Municipal Power Agency	Joe McKinney	Affirmative	
3	Florida Power Corporation	Lee Schuster	Negative	
3	Georgia Power Company	Danny Lindsey	Affirmative	

3	Georgia System Operations Corporation	Scott McGough	Negative	
3	Great River Energy	Brian Glover	Affirmative	
3	Gulf Power Company	Paul C Caldwell	Affirmative	
3	Hydro One Networks, Inc.	David Kiguel	Negative	
3	Imperial Irrigation District	Jesus S. Alcaraz		
3	JEA	Garry Baker	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke		
3	Kissimmee Utility Authority	Gregory D Woessner	Negative	
3	Lakeland Electric	Mace D Hunter	Negative	
3	Lincoln Electric System	Jason Fortik		
3	Los Angeles Department of Water & Power	Daniel D Kurowski		
3	Louisville Gas and Electric Co.	Charles A. Freibert	Abstain	
3	Manitoba Hydro	Greg C. Parent		
3	MidAmerican Energy Co.	Thomas C. Mielnik		
3	Mississippi Power	Jeff Franklin	Affirmative	
3	Modesto Irrigation District	Jack W Savage	Affirmative	
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Affirmative	
3	Muscatine Power & Water	John S Bos	Affirmative	
3	Nebraska Public Power District	Tony Eddleman	Affirmative	
3	New York Power Authority	David R Rivera	Negative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Negative	
3	Northern Indiana Public Service Co.	William SeDoris	Affirmative	
3	Omaha Public Power District	Blaine R. Dinwiddie		
3	Orange and Rockland Utilities, Inc.	David Burke	Affirmative	
3	Orlando Utilities Commission	Ballard K Mutters	Abstain	
3	Owensboro Municipal Utilities	Thomas T Lyons	Affirmative	
3	Pacific Gas and Electric Company	John H Hagen		
3	PacifiCorp	Dan Zollner	Abstain	
3	Pepco Holdings, Inc.	Mark R Jones	Affirmative	
3	Platte River Power Authority	Terry L Baker	Affirmative	
3	PNM Resources	Michael Mertz	Abstain	
3	Portland General Electric Co.	Thomas G Ward	Affirmative	
3	Progress Energy Carolinas	Sam Waters		
3	Public Service Electric and Gas Co.	Jeffrey Mueller	Affirmative	
3	Puget Sound Energy, Inc.	Erin Apperson	Affirmative	
3	Sacramento Municipal Utility District	James Leigh-Kendall	Affirmative	
3	Salt River Project	John T. Underhill		
3	Santee Cooper	James M Poston	Negative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	Seminole Electric Cooperative, Inc.	James R Frauen	Affirmative	
3	Snohomish County PUD No. 1	Mark Oens	Abstain	
3	South Carolina Electric & Gas Co.	Hubert C Young		
3	Southern California Edison Company	David B Coher	Affirmative	
3	Tacoma Public Utilities	Travis Metcalfe	Affirmative	
3	Tampa Electric Co.	Ronald L. Donahey		
3	Tennessee Valley Authority	Ian S Grant	Negative	
3	Tri-State G & T Association, Inc.	Janelle Marriott		
3	Westar Energy	Bo Jones	Affirmative	
3	Wisconsin Electric Power Marketing	James R Keller	Affirmative	
3	Xcel Energy, Inc.	Michael Ibold	Abstain	
4	American Municipal Power	Kevin Koloini	Abstain	
4	Blue Ridge Power Agency	Duane S Dahlquist	Affirmative	
4	City of Austin dba Austin Energy	Reza Ebrahimian	Affirmative	
4	City of New Smyrna Beach Utilities Commission	Tim Beyrle	Affirmative	
4	City of Redding	Nicholas Zettel	Affirmative	
4	City Utilities of Springfield, Missouri	John Allen	Negative	
4	Consumers Energy	David Frank Ronk	Affirmative	
4	Detroit Edison Company	Daniel Herring		
4	Flathead Electric Cooperative	Russ Schneider	Affirmative	
4	Florida Municipal Power Agency	Frank Gaffney	Affirmative	
4	Fort Pierce Utilities Authority	Cairo Vanegas	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Negative	
4	Imperial Irrigation District	Diana U Torres		
4	LaGen	Richard Comeaux	Abstain	
4	Madison Gas and Electric Co.	Joseph DePoorter	Affirmative	
4	Modesto Irrigation District	Spencer Tacke	Affirmative	

4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Old Dominion Electric Coop.	Mark Ringhausen	Affirmative	
4	Public Utility District No. 1 of Snohomish County	John D Martinsen	Abstain	
4	Sacramento Municipal Utility District	Mike Ramirez	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R Wallace	Affirmative	
4	Tacoma Public Utilities	Keith Morisette	Affirmative	
4	Turlock Irrigation District	Steven C Hill	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Affirmative	
5	AEP Service Corp.	Brock Ondayko	Affirmative	
5	Amerenue	Sam Dwyer	Affirmative	
5	Arizona Public Service Co.	Edward Cambridge	Abstain	
5	Associated Electric Cooperative, Inc.	Matthew Pacobit		
5	Avista Corp.	Edward F. Groce	Affirmative	
5	BC Hydro and Power Authority	Clement Ma	Abstain	
5	Boise-Kuna Irrigation District/dba Lucky peak power plant project	Mike D Kukla		
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	
5	Brazos Electric Power Cooperative, Inc.	Shari Heino	Negative	
5	City and County of San Francisco	Daniel Mason		
5	City of Austin dba Austin Energy	Jeanie Doty	Affirmative	
5	City of Redding	Paul A. Cummings	Affirmative	
5	City of Tallahassee	Karen Webb		
5	Cleco Power	Stephanie Huffman	Affirmative	
5	Cogentrix Energy, Inc.	Mike D Hirst	Abstain	
5	Colorado Springs Utilities	Jennifer Eckels	Affirmative	
5	Consolidated Edison Co. of New York	Wilket (Jack) Ng	Affirmative	
5	Consumers Energy Company	David C Greyerbiehl	Affirmative	
5	Deseret Power	Philip B Tice Jr	Abstain	
5	Detroit Edison Company	Christy Wicke	Affirmative	
5	Dominion Resources, Inc.	Mike Garton	Negative	
5	Duke Energy	Dale Q Goodwine	Negative	
5	Edison Mission Marketing & Trading Inc.	Brenda J Frazer	Affirmative	
5	El Paso Electric Company	David Hawkins	Affirmative	
5	Electric Power Supply Association	John R Cashin		
5	Energy Services, Inc.	Tracey Stubbs		
5	Essential Power, LLC	Patrick Brown	Affirmative	
5	Exelon Nuclear	Michael Korchynsky		
5	FirstEnergy Solutions	Kenneth Dresner	Affirmative	
5	Florida Municipal Power Agency	David Schumann	Affirmative	
5	Great River Energy	Preston L Walsh	Affirmative	
5	Hydro-Québec Production	Roger Dufresne	Abstain	
5	JEA	John J Babik	Affirmative	
5	Kansas City Power & Light Co.	Brett Holland	Negative	
5	Kissimmee Utility Authority	Mike Blough	Affirmative	
5	Lakeland Electric	James M Howard	Affirmative	
5	Liberty Electric Power LLC	Daniel Duff	Abstain	
5	Lincoln Electric System	Dennis Florom	Affirmative	
5	Los Angeles Department of Water & Power	Kenneth Silver	Abstain	
5	Manitoba Hydro	S N Fernando		
5	Massachusetts Municipal Wholesale Electric Company	David Gordon	Abstain	
5	MEAG Power	Steven Grego	Affirmative	
5	MidAmerican Energy Co.	Christopher Schneider		
5	Muscatine Power & Water	Mike Avesing	Affirmative	
5	Nebraska Public Power District	Don Schmit	Affirmative	
5	New York Power Authority	Wayne Sipperly	Negative	
5	NextEra Energy	Allen D Schriver	Negative	
5	North Carolina Electric Membership Corp.	Jeffrey S Brame	Affirmative	
5	Omaha Public Power District	Mahmood Z. Safi	Affirmative	
5	Pacific Gas and Electric Company	Richard J. Padilla		
5	PacifiCorp	Sandra L. Shaffer	Abstain	
5	Platte River Power Authority	Roland Thiel		
5	Portland General Electric Co.	matt E jastram	Affirmative	
5	PPL Generation LLC	Annette M Bannon	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis		
5	Proven Compliance Solutions	Mitchell E Needham		

5	PSEG Fossil LLC	Tim Kucey	Affirmative	
5	Public Utility District No. 1 of Lewis County	Steven Grega	Abstain	
5	Public Utility District No. 2 of Grant County, Washington	Michiko Sell	Abstain	
5	Puget Sound Energy, Inc.	Tom Flynn	Affirmative	
5	Sacramento Municipal Utility District	Bethany Hunter	Affirmative	
5	Salt River Project	William Alkema	Affirmative	
5	Santee Cooper	Lewis P Pierce	Negative	
5	Seattle City Light	Michael J. Haynes		
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins	Affirmative	
5	Snohomish County PUD No. 1	Sam Nietfeld	Abstain	
5	South Carolina Electric & Gas Co.	Edward Magic	Affirmative	
5	Southern California Edison Co.	Denise Yaffe	Affirmative	
5	Southern Company Generation	William D Shultz	Affirmative	
5	Tacoma Power	Chris Mattson	Affirmative	
5	Tampa Electric Co.	RJames Rocha	Affirmative	
5	Tennessee Valley Authority	David Thompson	Negative	
5	TransAlta Corporation	Rebbekka McFadden		
5	Tri-State G & T Association, Inc.	Mark Stein	Affirmative	
5	U.S. Army Corps of Engineers	Melissa Kurtz		
5	U.S. Bureau of Reclamation	Martin Bauer		
5	Westar Energy	Bryan Taggart	Affirmative	
5	Wisconsin Electric Power Co.	Linda Horn	Affirmative	
5	Xcel Energy, Inc.	Liam Noailles	Abstain	
6	AEP Marketing	Edward P. Cox	Affirmative	
6	Ameren Energy Marketing Co.	Jennifer Richardson	Affirmative	
6	APS	Randy A. Young	Abstain	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	
6	City of Austin dba Austin Energy	Lisa L Martin	Affirmative	
6	City of Redding	Marvin Briggs	Affirmative	
6	Cleco Power LLC	Robert Hirchak	Affirmative	
6	Colorado Springs Utilities	Lisa C Rosintoski	Affirmative	
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Affirmative	
6	Constellation Energy Commodities Group	Donald Schopp	Abstain	
6	Dominion Resources, Inc.	Louis S. Slade	Negative	
6	Duke Energy	Greg Cecil	Negative	
6	El Paso Electric Company	Tony Soto		
6	Entergy Services, Inc.	Terri F Benoit		
6	FirstEnergy Solutions	Kevin Querry	Affirmative	
6	Florida Municipal Power Agency	Richard L. Montgomery	Affirmative	
6	Florida Municipal Power Pool	Thomas Washburn	Affirmative	
6	Florida Power & Light Co.	Silvia P. Mitchell	Affirmative	
6	Great River Energy	Donna Stephenson	Affirmative	
6	Imperial Irrigation District	Cathy Bretz		
6	Kansas City Power & Light Co.	Jessica L Klinghoffer	Negative	
6	Lakeland Electric	Paul Shipps	Affirmative	
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Los Angeles Department of Water & Power	Brad Packer	Abstain	
6	Manitoba Hydro	Daniel Prowse		
6	MidAmerican Energy Co.	Dennis Kimm		
6	Modesto Irrigation District	James McFall	Affirmative	
6	Muscatine Power & Water	John Stolley	Affirmative	
6	New York Power Authority	Saul Rojas	Negative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Affirmative	
6	Omaha Public Power District	David Ried	Affirmative	
6	PacifiCorp	Scott L Smith	Abstain	
6	Platte River Power Authority	Carol Ballantine	Affirmative	
6	Portland General Electric Co.	John Jamieson	Affirmative	
6	PPL EnergyPlus LLC	Elizabeth Davis	Affirmative	
6	Progress Energy	John T Sturgeon	Negative	
6	PSEG Energy Resources & Trade LLC	Peter Dolan	Affirmative	
6	Public Utility District No. 2 of Grant County, Washington	CASEY SPROUSE		
6	Sacramento Municipal Utility District	Diane Enderby	Affirmative	
6	Salt River Project	Steven J Hulet	Affirmative	
6	Santee Cooper	Michael Brown	Negative	
6	Seattle City Light	Dennis Sismaet	Affirmative	

6	Seminole Electric Cooperative, Inc.	Trudy S. Novak	Affirmative	
6	Snohomish County PUD No. 1	William T Moojen	Abstain	
6	South California Edison Company	Lujuanna Medina	Affirmative	
6	Southern Company Generation and Energy Marketing	John J. Ciza	Affirmative	
6	Tacoma Public Utilities	Michael C Hill	Affirmative	
6	Tampa Electric Co.	Benjamin F Smith II		
6	Tennessee Valley Authority	Marjorie S. Parsons	Negative	
6	Westar Energy	Grant L Wilkerson	Affirmative	
6	Western Area Power Administration - UGP Marketing	Peter H Kinney	Affirmative	
6	Xcel Energy, Inc.	David F Lemmons		
8		Edward C Stein		
8		Roger C Zaklukiewicz	Negative	
8		James A Maenner	Affirmative	
8	JDRJC Associates	Jim Cyrulewski	Affirmative	
8	Massachusetts Attorney General	Frederick R Plett	Affirmative	
8	Utility Services, Inc.	Brian Evans-Mongeon		
8	Utility System Effeciencies, Inc. (USE)	Robert L Dintelman	Affirmative	
8	Volkmann Consulting, Inc.	Terry Volkmann	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald Nelson	Negative	
10	Florida Reliability Coordinating Council	Linda Campbell	Abstain	
10	Midwest Reliability Organization	William S Smith	Affirmative	
10	New York State Reliability Council	Alan Adamson	Negative	
10	Northeast Power Coordinating Council	Guy V. Zito	Negative	
10	ReliabilityFirst Corporation	Anthony E Jablonski	Affirmative	
10	SERC Reliability Corporation	Carter B Edge		
10	Southwest Power Pool RE	Emily Pennel	Affirmative	
10	Texas Reliability Entity, Inc.	Donald G Jones	Negative	
10	Western Electricity Coordinating Council	Steven L. Rueckert	Affirmative	

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Non-binding Poll Results

Project 2010-INT-01 Rapid Revision of TOP-006 for FMPP

Non-binding Poll Results	
Non-binding Poll Name:	Project 2010-INT-01 Non-binding Poll TOP-006
Poll Period:	7/20/2012 - 7/30/2012
Total # Votes:	270
Total Ballot Pool:	345
Summary Results:	78.26% of those who registered to participate provided an opinion or an abstention; 76.07% of those who provided an opinion indicated support for the VRFs and VSLs.

Individual Ballot Pool Results

Segment	Organization	Member	Opinion	Comments
1	Ameren Services	Kirit Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Affirmative	
1	Arizona Public Service Co.	Robert Smith	Abstain	
1	Associated Electric Cooperative, Inc.	John Bussman	Affirmative	
1	ATCO Electric	Glen Sutton	Negative	
1	Austin Energy	James Armke	Affirmative	
1	Avista Corp.	Scott J Kinney	Affirmative	
1	Balancing Authority of Northern California	Kevin Smith	Affirmative	
1	BC Hydro and Power Authority	Patricia Robertson	Abstain	
1	Beaches Energy Services	Joseph S Stonecipher	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	
1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Negative	
1	Bryan Texas Utilities	John C Fontenot	Affirmative	
1	CenterPoint Energy Houston Electric, LLC	John Brockhan	Abstain	
1	Central Maine Power Company	Joseph Turano Jr.	Affirmative	
1	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Chang G Choi	Affirmative	
1	Clark Public Utilities	Jack Stamper	Affirmative	
1	Cleco Power LLC	Danny McDaniel	Abstain	
1	Colorado Springs Utilities	Paul Morland	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Abstain	
1	CPS Energy	Richard Castrejana	Affirmative	
1	Dairyland Power Coop.	Robert W. Roddy	Affirmative	
1	Dayton Power & Light Co.	Hertzel Shamash	Affirmative	
1	Dominion Virginia Power	Michael S Crowley	Negative	
1	Duke Energy Carolina	Douglas E. Hils	Negative	

1	El Paso Electric Company	Dennis Malone	Affirmative	
1	Empire District Electric Co.	Ralph F Meyer	Affirmative	
1	Entergy Services, Inc.	Edward J Davis		
1	FirstEnergy Corp.	William J Smith	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Affirmative	
1	Florida Power & Light Co.	Mike O'Neil		
1	Gainesville Regional Utilities	Richard Bachmeier	Affirmative	
1	Great River Energy	Gordon Pietsch		
1	Hoosier Energy Rural Electric Cooperative, Inc.	Bob Solomon		
1	Hydro One Networks, Inc.	Ajay Garg	Negative	
1	Imperial Irrigation District	Tino Zaragoza	Abstain	
1	International Transmission Company Holdings Corp	Michael Moltane	Abstain	
1	JEA	Ted Hobson		
1	KAMO Electric Cooperative	Walter Kenyon		
1	Kansas City Power & Light Co.	Michael Gammon	Negative	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	John W Delucca	Affirmative	
1	LG&E Energy Transmission Services	Bradley C. Young		
1	Lincoln Electric System	Doug Bantam	Affirmative	
1	Long Island Power Authority	Robert Ganley		
1	Lower Colorado River Authority	Martyn Turner		
1	Manitoba Hydro	Joe D Petaski		
1	MEAG Power	Danny Dees	Affirmative	
1	MidAmerican Energy Co.	Terry Harbour	Affirmative	
1	National Grid USA	Michael Jones	Affirmative	
1	Nebraska Public Power District	Cole C Brodine	Negative	
1	New York Power Authority	Bruce Metruck	Negative	
1	New York State Electric & Gas Corp.	Raymond P Kinney		
1	Northeast Utilities	David Boguslawski	Abstain	
1	NorthWestern Energy	John Canavan		
1	NStar Gas and Electric	John Robertson	Negative	
1	Ohio Valley Electric Corp.	Robert Mattey	Affirmative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	Doug Peterchuck		
1	Oncor Electric Delivery	Jen Fiegel	Affirmative	
1	Orlando Utilities Commission	Brad Chase		
1	Pacific Gas and Electric Company	Bangalore Vijayraghavan		
1	PacifiCorp	Ryan Millard	Abstain	
1	PECO Energy	Ronald Schloendorn	Abstain	
1	Platte River Power Authority	John C. Collins		
1	Portland General Electric Co.	John T Walker	Affirmative	
1	PowerSouth Energy Cooperative	Larry D Avery	Abstain	
1	PPL Electric Utilities Corp.	Brenda L Truhe	Affirmative	
1	Progress Energy Carolinas	Brett A. Koelsch	Negative	

1	Public Service Company of New Mexico	Laurie Williams	Abstain	
1	Public Service Electric and Gas Co.	Kenneth D. Brown	Abstain	
1	Public Utility District No. 1 of Okanogan County	Dale Dunckel	Abstain	
1	Public Utility District No. 2 of Grant County, Washington	Rod Noteboom		
1	Puget Sound Energy, Inc.	Denise M Lietz	Affirmative	
1	Rochester Gas and Electric Corp.	John C. Allen	Abstain	
1	Sacramento Municipal Utility District	Tim Kelley	Affirmative	
1	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L Blackwell	Negative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Snohomish County PUD No. 1	Long T Duong	Abstain	
1	South California Edison Company	Steven Mavis	Affirmative	
1	South Carolina Electric & Gas Co.	Tom Hanzlik	Affirmative	
1	Southern Company Services, Inc.	Robert A. Schaffeld	Affirmative	
1	Southern Illinois Power Coop.	William Hutchison		
1	Southwest Transmission Cooperative, Inc.	John Shaver	Negative	
1	Sunflower Electric Power Corporation	Noman Lee Williams	Negative	
1	Tennessee Valley Authority	Howell D Scott	Negative	
1	Trans Bay Cable LLC	Steven Powell	Affirmative	
1	Tri-State G & T Association, Inc.	Tracy Sliman	Affirmative	
1	Tucson Electric Power Co.	John Tolo		
1	Turlock Irrigation District	Esteban Martinez	Affirmative	
1	United Illuminating Co.	Jonathan Appelbaum	Affirmative	
1	Westar Energy	Allen Klassen	Affirmative	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Western Farmers Electric Coop.	Forrest Brock	Affirmative	
1	Xcel Energy, Inc.	Gregory L Pieper		
2	BC Hydro	Venkataramakrishnan Vinnakota	Abstain	
2	Electric Reliability Council of Texas, Inc.	Cheryl Moseley	Affirmative	
2	Independent Electricity System Operator	Barbara Constantinescu	Affirmative	
2	Midwest ISO, Inc.	Marie Knox		
2	New Brunswick System Operator	Alden Briggs	Abstain	
2	New York Independent System Operator	Gregory Campoli		
2	PJM Interconnection, L.L.C.	stephanie monzon	Affirmative	
2	Southwest Power Pool, Inc.	Charles H. Yeung	Negative	
3	AEP	Michael E Deloach		
3	Alabama Power Company	Richard J. Mandes	Affirmative	
3	Ameren Services	Mark Peters	Affirmative	
3	APS	Steven Norris	Abstain	
3	Avista Corp.	Robert Lafferty		
3	BC Hydro and Power Authority	Pat G. Harrington	Abstain	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	

3	Central Electric Power Cooperative	Adam M Weber		
3	City of Austin dba Austin Energy	Andrew Gallo	Affirmative	
3	City of Bartow, Florida	Matt Culverhouse		
3	City of Farmington	Linda R Jacobson	Abstain	
3	City of Garland	Ronnie C Hoeinghaus	Affirmative	
3	City of Green Cove Springs	Gregg R Griffin	Abstain	
3	City of Redding	Bill Hughes	Affirmative	
3	Cleco Corporation	Michelle A Corley	Abstain	
3	Colorado Springs Utilities	Charles Morgan	Affirmative	
3	Consolidated Edison Co. of New York	Peter T Yost	Abstain	
3	Consumers Energy	Richard Blumenstock	Affirmative	
3	CPS Energy	Jose Escamilla	Affirmative	
3	Detroit Edison Company	Kent Kujala	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Negative	
3	El Paso Electric Company	Tracy Van Slyke	Affirmative	
3	Entergy	Joel T Plessinger		
3	FirstEnergy Energy Delivery	Stephan Kern	Affirmative	
3	Florida Municipal Power Agency	Joe McKinney	Affirmative	
3	Florida Power Corporation	Lee Schuster		
3	Georgia Power Company	Danny Lindsey	Affirmative	
3	Georgia System Operations Corporation	Scott McGough	Negative	
3	Great River Energy	Brian Glover	Negative	
3	Gulf Power Company	Paul C Caldwell	Affirmative	
3	Hydro One Networks, Inc.	David Kiguel	Negative	
3	Imperial Irrigation District	Jesus S. Alcaraz		
3	JEA	Garry Baker	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke		
3	Kissimmee Utility Authority	Gregory D Woessner	Negative	
3	Lakeland Electric	Mace D Hunter	Negative	
3	Lincoln Electric System	Jason Fortik		
3	Los Angeles Department of Water & Power	Daniel D Kurowski		
3	Louisville Gas and Electric Co.	Charles A. Freibert		
3	Manitoba Hydro	Greg C. Parent		
3	MidAmerican Energy Co.	Thomas C. Mielnik		
3	Mississippi Power	Jeff Franklin	Affirmative	
3	Modesto Irrigation District	Jack W Savage	Affirmative	
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Affirmative	
3	Muscatine Power & Water	John S Bos	Affirmative	
3	Nebraska Public Power District	Tony Eddleman	Negative	
3	New York Power Authority	David R Rivera	Negative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Negative	
3	Northern Indiana Public Service Co.	William SeDoris	Affirmative	
3	Orange and Rockland Utilities, Inc.	David Burke	Abstain	
3	Orlando Utilities Commission	Ballard K Mutters	Abstain	

3	Owensboro Municipal Utilities	Thomas T Lyons	Negative	
3	Pacific Gas and Electric Company	John H Hagen		
3	PacifiCorp	Dan Zollner	Abstain	
3	Pepco Holdings, Inc.	Mark R Jones	Abstain	
3	Platte River Power Authority	Terry L Baker	Abstain	
3	PNM Resources	Michael Mertz	Abstain	
3	Portland General Electric Co.	Thomas G Ward	Affirmative	
3	Progress Energy Carolinas	Sam Waters		
3	Public Service Electric and Gas Co.	Jeffrey Mueller	Abstain	
3	Puget Sound Energy, Inc.	Erin Apperson	Affirmative	
3	Sacramento Municipal Utility District	James Leigh-Kendall	Affirmative	
3	Salt River Project	John T. Underhill	Affirmative	
3	Santee Cooper	James M Poston	Negative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	Seminole Electric Cooperative, Inc.	James R Frauen	Affirmative	
3	Snohomish County PUD No. 1	Mark Oens	Abstain	
3	South Carolina Electric & Gas Co.	Hubert C Young		
3	Tacoma Public Utilities	Travis Metcalfe	Affirmative	
3	Tampa Electric Co.	Ronald L. Donahey		
3	Tennessee Valley Authority	Ian S Grant	Negative	
3	Tri-State G & T Association, Inc.	Janelle Marriott		
3	Westar Energy	Bo Jones	Affirmative	
3	Wisconsin Electric Power Marketing	James R Keller		
3	Xcel Energy, Inc.	Michael Ibold	Abstain	
4	American Municipal Power	Kevin Koloini	Abstain	
4	Blue Ridge Power Agency	Duane S Dahlquist	Affirmative	
4	City of Austin dba Austin Energy	Reza Ebrahimian	Affirmative	
4	City of New Smyrna Beach Utilities Commission	Tim Beyrle		
4	City of Redding	Nicholas Zettel	Affirmative	
4	City Utilities of Springfield, Missouri	John Allen	Abstain	
4	Consumers Energy	David Frank Ronk	Affirmative	
4	Detroit Edison Company	Daniel Herring		
4	Flathead Electric Cooperative	Russ Schneider	Affirmative	
4	Florida Municipal Power Agency	Frank Gaffney	Affirmative	
4	Fort Pierce Utilities Authority	Cairo Vanegas	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Negative	
4	Imperial Irrigation District	Diana U Torres		
4	LaGen	Richard Comeaux	Abstain	
4	Madison Gas and Electric Co.	Joseph DePoorter	Abstain	
4	Modesto Irrigation District	Spencer Tacke	Affirmative	
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Old Dominion Electric Coop.	Mark Ringhausen	Abstain	
4	Sacramento Municipal Utility District	Mike Ramirez	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R Wallace	Affirmative	

4	Tacoma Public Utilities	Keith Morisette	Affirmative	
4	Turlock Irrigation District	Steven C Hill	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Affirmative	
5	AEP Service Corp.	Brock Ondayko	Affirmative	
5	Amerenue	Sam Dwyer	Affirmative	
5	Arizona Public Service Co.	Edward Cambridge	Abstain	
5	Associated Electric Cooperative, Inc.	Matthew Pacobit		
5	Avista Corp.	Edward F. Groce	Affirmative	
5	BC Hydro and Power Authority	Clement Ma	Abstain	
5	Boise-Kuna Irrigation District/dba Lucky peak power plant project	Mike D Kukla		
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	
5	Brazos Electric Power Cooperative, Inc.	Shari Heino	Negative	
5	City and County of San Francisco	Daniel Mason		
5	City of Austin dba Austin Energy	Jeanie Doty	Affirmative	
5	City of Redding	Paul A. Cummings	Affirmative	
5	City of Tallahassee	Karen Webb		
5	Cleco Power	Stephanie Huffman	Abstain	
5	Cogentrix Energy, Inc.	Mike D Hirst	Abstain	
5	Colorado Springs Utilities	Jennifer Eckels	Affirmative	
5	Consolidated Edison Co. of New York	Wilket (Jack) Ng	Abstain	
5	Consumers Energy Company	David C Greyerbiehl	Affirmative	
5	Deseret Power	Philip B Tice Jr	Affirmative	
5	Detroit Edison Company	Christy Wicke	Affirmative	
5	Duke Energy	Dale Q Goodwine	Negative	
5	Edison Mission Marketing & Trading Inc.	Brenda J Frazer	Affirmative	
5	El Paso Electric Company	David Hawkins		
5	Electric Power Supply Association	John R Cashin		
5	Energy Services, Inc.	Tracey Stubbs		
5	Essential Power, LLC	Patrick Brown	Affirmative	
5	Exelon Nuclear	Michael Korchynsky		
5	FirstEnergy Solutions	Kenneth Dresner	Affirmative	
5	Florida Municipal Power Agency	David Schumann	Affirmative	
5	Great River Energy	Preston L Walsh	Negative	
5	Hydro-Québec Production	Roger Dufresne		
5	JEA	John J Babik	Affirmative	
5	Kansas City Power & Light Co.	Brett Holland	Negative	
5	Kissimmee Utility Authority	Mike Blough	Affirmative	
5	Lakeland Electric	James M Howard	Affirmative	
5	Liberty Electric Power LLC	Daniel Duff	Abstain	
5	Lincoln Electric System	Dennis Florom	Affirmative	
5	Los Angeles Department of Water & Power	Kenneth Silver	Abstain	
5	Manitoba Hydro	S N Fernando		
5	Massachusetts Municipal Wholesale Electric Company	David Gordon	Abstain	
5	MEAG Power	Steven Grego	Affirmative	

5	MidAmerican Energy Co.	Christopher Schneider		
5	Muscatine Power & Water	Mike Avesing	Affirmative	
5	Nebraska Public Power District	Don Schmit	Negative	
5	New York Power Authority	Wayne Sipperly	Negative	
5	NextEra Energy	Allen D Schriver	Negative	
5	North Carolina Electric Membership Corp.	Jeffrey S Brame	Negative	
5	Omaha Public Power District	Mahmood Z. Safi	Affirmative	
5	Pacific Gas and Electric Company	Richard J. Padilla		
5	PacifiCorp	Sandra L. Shaffer	Abstain	
5	Platte River Power Authority	Roland Thiel		
5	Portland General Electric Co.	matt E jastram	Affirmative	
5	PPL Generation LLC	Annette M Bannon	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis		
5	Proven Compliance Solutions	Mitchell E Needham		
5	PSEG Fossil LLC	Tim Kucey	Abstain	
5	Public Utility District No. 1 of Lewis County	Steven Grega	Affirmative	
5	Public Utility District No. 2 of Grant County, Washington	Michiko Sell		
5	Puget Sound Energy, Inc.	Tom Flynn	Affirmative	
5	Sacramento Municipal Utility District	Bethany Hunter	Affirmative	
5	Salt River Project	William Alkema	Affirmative	
5	Santee Cooper	Lewis P Pierce	Negative	
5	Seattle City Light	Michael J. Haynes		
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins	Affirmative	
5	Snohomish County PUD No. 1	Sam Nietfeld	Abstain	
5	South Carolina Electric & Gas Co.	Edward Magic	Affirmative	
5	Southern California Edison Co.	Denise Yaffe	Affirmative	
5	Southern Company Generation	William D Shultz	Affirmative	
5	Tacoma Power	Chris Mattson	Affirmative	
5	Tampa Electric Co.	RJames Rocha	Affirmative	
5	Tennessee Valley Authority	David Thompson	Negative	
5	Tri-State G & T Association, Inc.	Mark Stein		
5	U.S. Army Corps of Engineers	Melissa Kurtz		
5	U.S. Bureau of Reclamation	Martin Bauer		
5	Wisconsin Electric Power Co.	Linda Horn		
5	Xcel Energy, Inc.	Liam Noailles		
6	AEP Marketing	Edward P. Cox	Affirmative	
6	Ameren Energy Marketing Co.	Jennifer Richardson	Affirmative	
6	APS	Randy A. Young	Abstain	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	
6	City of Austin dba Austin Energy	Lisa L Martin	Affirmative	
6	City of Redding	Marvin Briggs	Affirmative	
6	Cleco Power LLC	Robert Hirchak	Abstain	
6	Colorado Springs Utilities	Lisa C Rosintoski	Affirmative	
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Abstain	

6	Duke Energy	Greg Cecil	Negative	
6	El Paso Electric Company	Tony Soto		
6	Entergy Services, Inc.	Terri F Benoit		
6	FirstEnergy Solutions	Kevin Querry	Affirmative	
6	Florida Municipal Power Agency	Richard L. Montgomery	Affirmative	
6	Florida Municipal Power Pool	Thomas Washburn	Affirmative	
6	Florida Power & Light Co.	Silvia P. Mitchell	Abstain	
6	Great River Energy	Donna Stephenson	Negative	
6	Imperial Irrigation District	Cathy Bretz		
6	Kansas City Power & Light Co.	Jessica L Klinghoffer	Negative	
6	Lakeland Electric	Paul Shipps	Affirmative	
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Los Angeles Department of Water & Power	Brad Packer	Abstain	
6	Manitoba Hydro	Daniel Prowse		
6	MidAmerican Energy Co.	Dennis Kimm		
6	Modesto Irrigation District	James McFall	Affirmative	
6	Muscatine Power & Water	John Stolley	Affirmative	
6	New York Power Authority	Saul Rojas	Negative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Affirmative	
6	Omaha Public Power District	David Ried	Affirmative	
6	PacifiCorp	Scott L Smith	Abstain	
6	Platte River Power Authority	Carol Ballantine	Abstain	
6	Portland General Electric Co.	John Jamieson	Affirmative	
6	PPL EnergyPlus LLC	Elizabeth Davis	Affirmative	
6	Progress Energy	John T Sturgeon	Negative	
6	PSEG Energy Resources & Trade LLC	Peter Dolan	Abstain	
6	Sacramento Municipal Utility District	Diane Enderby	Affirmative	
6	Salt River Project	Steven J Hulet	Affirmative	
6	Santee Cooper	Michael Brown	Negative	
6	Seattle City Light	Dennis Sismaet	Affirmative	
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak	Affirmative	
6	Snohomish County PUD No. 1	William T Moojen	Abstain	
6	South California Edison Company	Lujuanna Medina	Affirmative	
6	Southern Company Generation and Energy Marketing	John J. Ciza	Affirmative	
6	Tacoma Public Utilities	Michael C Hill	Affirmative	
6	Tampa Electric Co.	Benjamin F Smith II		
6	Tennessee Valley Authority	Marjorie S. Parsons	Negative	
6	Westar Energy	Grant L Wilkerson		
6	Western Area Power Administration - UGP Marketing	Peter H Kinney	Affirmative	
8		Roger C Zaklukiewicz	Negative	
8		Edward C Stein		
8		James A Maenner	Affirmative	
8	JDRJC Associates	Jim Cyrulewski	Affirmative	
8	Massachusetts Attorney General	Frederick R Plett	Affirmative	

8	Utility Services, Inc.	Brian Evans-Mongeon		
8	Utility System Effeciencies, Inc. (USE)	Robert L Dintelman	Affirmative	
8	Volkmann Consulting, Inc.	Terry Volkmann	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald Nelson	Negative	
10	Florida Reliability Coordinating Council	Linda Campbell	Abstain	
10	Midwest Reliability Organization	William S Smith	Affirmative	
10	New York State Reliability Council	Alan Adamson	Negative	
10	Northeast Power Coordinating Council	Guy V. Zito	Negative	
10	ReliabilityFirst Corporation	Anthony E Jablonski	Affirmative	
10	SERC Reliability Corporation	Carter B. Edge	Abstain	
10	Southwest Power Pool RE	Emily Pennel	Affirmative	
10	Texas Reliability Entity, Inc.	Donald G Jones	Negative	
10	Western Electricity Coordinating Council	Steven L. Rueckert	Abstain	

Individual or group. (32 Responses)
Name (17 Responses)
Organization (17 Responses)
Group Name (15 Responses)
Lead Contact (15 Responses)
Question 1 (30 Responses)
Question 1 Comments (32 Responses)
Question 2 (30 Responses)
Question 2 Comments (32 Responses)
Question 3 (27 Responses)
Question 3 Comments (32 Responses)
Question 4 (26 Responses)
Question 4 Comments (32 Responses)
Question 5 (0 Responses)
Question 5 Comments (32 Responses)

Individual
Scott McGough
Georgia System Operations Corporation
No
See Comment no. 5
No
See Comment no. 5
No
See Comment no. 5
No
See Comment no. 5
The industry and the NERC Board have already approved retiring TOP-006. TOP-001 through TOP-006 are going to be replaced with new versions of TOP-001 through TOP-003. The new versions have already been filed with FERC and are pending FERC's approval. No additional time should be spent on this interpretation for TOP-006 by NERC or by the industry. This project should be closed.
Individual
Michael Falvo
Independent Electricity System Operator
Yes
Yes
Yes
Yes
Individual
Mace Hunter

Lakeland Electric
No
I agree with the changes to R1.2. The new R1.3 is redundant in requiring the BA to inform it's TO of all generator resources available for use when R1.1 requires the GO to inform it's TO of all generator resources available for use. Redundant information would be passing through a third party, the BA.
Yes
Yes
Yes
Group
Northeast Power Coordinating Council
Guy Zito
Yes
No
The requirement to provide "appropriate technical information" should be revised to require applicable operational information.
Yes
Yes
CAN-0026 dated Dec. 9, 2011 should be withdrawn because it expanded the scope to include protective relays regardless of ownership or maintenance responsibility that may impact the entity.
Individual
Thad Ness
American Electric Power
Yes
Yes
Yes
Yes
Individual
RoLynda Shumpert
South Carolina Electric and Gas
Yes

Yes
Yes
Yes
Individual
Wayne Sipperly
New York Power Authority
NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Individual
Terri Pyle
Oklahoma Gas & Electric
Yes
Yes
Yes
Yes
Regarding R3 and M3, it might be appropriate to provide more information on what is considered "appropriate technical information". Can we assume this is related to the requirements in the PRC-001 standard?
Individual
Patrick Brown
Essential Power, LLC
Yes
Yes
Yes
Yes
Group

MRO NSRF
WILL SMITH
Yes
The NSRF agrees, thank you.
Yes
The NSRF agrees, thank you.
Yes
The NSRF agrees, thank you.
Yes
The NSRF agrees, thank you.
In the Table of Compliance Elements under the R3 row, it appears the criteria for Lower VSL and Severe VSL are the same. Currently in the Lower VSL column, it states the responsible entity failed to provide any of the information; and, in the severe, it states the responsible entity failed to provide all of the information. If an entity fails to provide any of the information, there is a perception they can't provide any of the information at all, which is very similar to failing to provide all. Recommend the word "any" be changed to "some" in the Lower VSL column.
Individual
Jonathan Appelbaum
The United illuminating Company
No
The phrasing for R1 can still be interpreted to apply to both Transmission Operators and Balancing Authorities even with the proposed changes to the sub-requirement. We have seen NERC Compliance apply the requirements at the Requirement level without regard to the subrequirements phrasing. We suggest adding an additional phrase to R1 such that R1 states, Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use AS SPECIFIED FURTHER IN THE SUB_REQUIREMENTS. In the alternative, each sub requirement could be relabeled as its own requirement.
No
UI agrees with the concept but disagrees with the phrasing, for which the entity has responsibility. Responsibility to do what? Responsibility to operate or responsibility to build, or responsibility to maintain etc. Was the intent to provide operating personnel information of protection systems deployed in the operating area which impacts the functions the Entity registered for.
Yes
Yes
Group
Progress Energy
Jim Eckelkamp
PGN supports the comments submitted by Duke

Individual
Don Jones
Texas Reliability Entity
Yes
No
Responsibility is one aspect to consider but impact to the area of the responsible entities in question is as important to consider. With the proposed wording it appears that Reliability Coordinators and Balancing Authorities, in general, will not provide any technical information to their personnel concerning protective relays. Determining the extent of “responsibility” as used here is ambiguous and difficult to determine. Does an SPS owned by a Generator Owner, Transmission Owner, or Distribution Provider meet the intent of the “responsibility” phrase for the Reliability Coordinator and Transmission Operator? Suggest changing the wording to “Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays WITHIN OR IMPACTING THEIR AREA(S).” The VSLs for R3 seem inappropriate in that a Lower VSL is applicable if the responsible entity failed to provide “any” appropriate technical information yet a Severe VSL is applicable if the responsible entity failed to provide “all” appropriate technical information. We suggest you revise this to use less ambiguous terminology.
Yes
There is not a Measurement for Requirement 6. Should “Complaint” be added in the “Compliance Monitoring and Assessment Processes” section?
Individual
Scott Bos
Muscatine Power and Water
Yes
Thank you
Yes
Thank you
Yes
Thank you
Yes
Thank you
MPW would like to point out that in the Table of Compliance Elements under the R3 row, it appears the criteria for Lower VSL and Severe VSL are the same. Currently in the Lower VSL column, it states the responsible entity failed to provide any of the information; and, in the severe, it states the responsible entity failed to provide all of the information. If an entity fails to provide any of the information, there is a perception they can’t provide any of the information at all, which is very similar to failing to provide all. MPW recommends the word “any” be changed to “some” in the Lower VSL column.
Individual
Andrew Z. Pusztai
American Transmission Company

Yes
ATC is encouraged by the action of the SDT in splitting the responsibilities of BAs and TOPs rather than having one requirement for both functions. ATC is further recommending that NERC consider doing this for other Reliability Standards where BAs and TOPs are obligated to same requirements in one requirement, and revise in the same manner.
Yes
Since it is acklowledged there would be double jeopardy with PRC-001 R1 until Project 2007-03 Real-time Operations is approved and TOP-006 R3 is retired, ATC recommends deleting R3 of TOP-006-2 at this time and introducing the Reliability Coordinator as an Applicable Function within PRC-001-2 and include as part of PRC-001-2 R1.
Yes
Yes
Group
Tennessee Valley Authority
DeWayne Scott
No
The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. We suggest the word “all” be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use “as specified in R1.1, R1.2 and R1.3”. Alternatively, we feel that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
No
The R3 revision is an improvement but is still too broad as “appropriate technical information” could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it). We also believe that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows: R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.
The SDT has indicated that some language has been added “bring the standard up to the current boiler plate wording approved by the Standards Committee”, specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as “boiler plate” language. The SC has a document entitled Drafting Team Guidelines that does include “default language” to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. The VSLs for R3 seem to be reversed (ie. failure to provide any info should be Severe and failure to provide all info should be Lower). This appears to have been in error since the initial version.
Group

Bonneville Power Administration
Chris Higgins
Yes
Yes
Yes
Yes
BPA thanks you for the opportunity to comment on the Rapid Revision of TOP-006 and supports the standard as written with no other comments or concerns.
Group
Southwest Power Pool Regional Entity
Emily Pennel
Yes
No
"Responsibility" is not the appropriate word in R3 and M5. In R3 and M5, SPP RE recommends stating "...appropriate technical information concerning protective relays in the entity's footprint. "
Yes
Yes
Group
Dominion
Connie Lowe
No
The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. Dominion suggests the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, Dominion feels that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
No
The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it). Dominion believes that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows: R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.

Yes
Yes
Dominion suggests in M3 where “Transmission Operators” is referenced this be changed to read as “Transmission Operator(s)”.
Group
Duke Energy
Greg Rowland
No
(1) R1.2 - The TOP should continue to inform its BA about transmission resources available for use. The Functional Model states that the Transmission Operator “15. Provides Real-time operations information to the Reliability Coordinator and Balancing Authority.” Also, since TOPs can’t determine which other TOPs may be “affected”, we believe the TOP should inform “adjacent” TOPs about transmission resources available for use. Reword R1.2 as follows: “ Each Transmission Operator shall inform its Reliability Coordinator, Balancing Authority and adjacent Transmission Operators of all transmission resources available for use.” (2) M2 – Revise to be consistent with our suggested change to R1.2 above. (3) M5 – Revise to be consistent with our suggested change to R3 below. (4) VSLs for R1.2 and R3 – Revise to be consistent with our suggested changes to R1.2 and R3. Also, the Lower and Severe VSLs for R3 appear to be reversed (i.e. failure to provide “any” information is a more serious violation than a failure to provide “all” information).
No
PRC-001-2 Requirement R1 states “Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area. [Violation Risk factor: High][Time Horizon: Operations Planning, Same-day Operations, Real-time Operations] . We believe that this requirement is redundant with TOP-006-3 except for the RC, so we suggest that R3 be rewritten to apply only to the RC. Since the phrases “its operating personnel” and “appropriate technical information” lack clarity needed for effective compliance, we propose that the rewrite should use wording similar to PRC-001-2 R1, as follows: “Each Reliability Coordinator shall be familiar with the purpose and limitations of protection system schemes applied in its area.” Alternatively, since PRC-001-2 is now being revised to include just R1, TOP-006-3 could be revised to include the RC, TOP, BA and GOP, and PRC-001-2 could then be retired.
Yes
Yes
Individual
Jack Stamper
Clark Public Utilities
Yes
R1.3 is confusing to me. My utility is a TOP but not a BA. We have a transmission system which our own personnel operate and we have generation connected to our transmission. Our entire transmission system (with its connected generation) is located within the metering boundaries of one BA. R1.1 states our generator is supposed to notify my utility's TOP organization as well as our BA of its availability. I have no problem with R1.1. R1.3 states the BA is supposed to notify its RC

and its TOP. Our BA is also a TOP for its own transmission facilities. Our generator is not attached directly to our BA's transmission facilities but to our transmission facilities. Is R1.3 telling the BA it is supposed to notify it own TOP organization of the generator availability (generator attached to my utility's transmission system)? Chances are the people operating our BA are the same people operating our BA's transmission system so this notification seems kind of pointless. In the alternative, is R1.3 telling the BA it needs to notify the TOP that operates the transmission system the generator is connected to? The generator already did that in R1.1 so this would also seem to be pointless. Does the SDT intend for R1.3 to require the BA to notify its RC and "affected TOPs?" This make a little more sense than the current wording. If this is the intent of the SDT the wording doesn't do it. It seems to me that if per R1.1 the generator notifies it's BA and its TOP and then per R1.3 the BA notifies its RC, everyone has been notified of the generator availability and therefore, R1.3 would not need to include a TOP notification. This issue is not critical to me since it provides a confusing requirement for the BA and my utility is not a BA. Therefore I plan to vote in the affirmative on the draft but the SDT should consider cleaning R1.3 up a bit to make it clear what TOP is supposed to be notified by the BA in R1.3.
Yes
Yes
Yes
Individual
Darryl Curtis
Oncor Electric Delivery
Yes
Yes
Yes
Yes
Group
ISO/RTO Council Standards Review Committee
Al DiCaprio
Yes
No
This requirement applies to RC, TOP and BA, and these entities have no responsibilities for the design or proper operation of the protective relays. These entities are responsible for meeting their respective, applicable standard requirements. Some of the tasks these entities perform may require an understanding of the protective relays, and this is the information that needs to be provided to the operating personnel. We therefore suggest the following alternative language to R3: R3. Each

RC, TOP, and BA shall provide its operating personnel with technical information concerning protective relays that is related to the respective entity's responsibility for meeting NERC standards.
Yes
Yes
Individual
Chris Mattson
Tacoma Power
Yes
Yes
Yes
Yes
Group
SERC OC Standards Review Group
Wayne Van Liere
No
The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. We suggest the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, we feel that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
No
The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it). We also believe that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows: R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.
The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee", specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document

entitled Drafting Team Guidelines that does include “default language” to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. The VSLs for R3 seem to be reversed (ie. failure to provide any info should be Severe and failure to provide all info should be Lower). This appears to have been in error since the initial version.
Group
Southern Company
Shammara Hasty
Yes
The GOP is already required to provide information on generating unit availability to the TOP under R1.1. Requiring the BA to also provide this same information to the TOP in R1.3 appears to be unnecessarily redundant. Also, the SDT should consider the redundancy of R1.1 and R1.3 to requirements in other standards that specify information exchange on generating resource availability and capability (e.g., TOP-002-2b, R14.; TOP-003-1, R1.; IRO-010-1a, R3.; etc.)
Yes
The SDT effectively addresses the ambiguity in R3 with respect to responsibility. However, we recommend that the SDT clarify what constitutes “appropriate technical information” concerning protective relays.
Yes
Yes
Group
Western Electricity Coordinating Council
Steve Rueckert
No
1.1 Requires Generator Operator to inform both BA and TOP of Generation Status while 1.3 Requires BA to inform TOP of Generation Status. This is duplicative. IF GOP must inform both TOP and BA there is no need to require BA to inform TOP. Preferable change would be for GOP to only inform BA and require BA to inform TOP. but could also work to have GOP inform both functions and remove requirement for BA to inform TOP from 1.3.
No
Change does not provide the clarity that is desired. This would require determining “responsibility” for protection systems between RC and TOP. In its role as RC with a wide area view what is its responsibility for a protection system as opposed to the TOP. Within a TOP/BA footprint what Protections system “responsibility” is split between these two functions. A BA should be as interested in Generator Protection systems as any Transmission Protection systems. Do not believe this change is required as R3 already identified the word “appropriate” technical information.
Yes
Yes
In 1.1 the GO is required to inform its Host BA of all generation resources available for use, and in 1.3 the BA is required to inform its RC and TOPs of all generation resources available for use. Is there any need for other BAs to be informed of generation resources available for use?

Group
PPL Corporation NERC Registered Affiliates
Stephen Berger
No
The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. The TOP (or GOP) cannot be held responsible for transmission (or generation) resources outside of its area of responsibility (i.e. outside its jurisdiction or not under its control). The revised R1.2 and new R1.3 do not state this distinction and are thus too broad. Suggest R1 be revised to: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use as specified in R1.1 and R1.2. Suggest R1.2 be revised to: Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of transmission resources under its control which are available for use. Suggest R1.3 be revised to: Each Balancing Authority shall inform its Reliability Coordinator and Transmission Operator of generation resources within its Balancing Authority Area which are available for use.
No
The R3 revision is an improvement but is still too broad as “appropriate technical information” could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does not how it does it). Suggested language: R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide System Operators with appropriate information concerning the functions of protective relays to allow such personnel to perform their real-time operating duties on protective relays for which the entity has responsibility.
The SDT has indicated that some language has been added “bring the standard up to the current boiler plate wording approved by the Standards Committee,” specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as “boiler plate” language. The SC has a document entitled Drafting Team Guidelines that does include “default language” to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. If suggested language provided in comments 1 and 2 are adopted, Measures for R1, R1.2, R1.3 and R3 would need to be revised to be consistent with the revised language. The VSLs for R3 seem to be reversed (i.e. failure to provide any info should be Severe and failure to provide all info should be Lower).
Group
SPP Standards Review Group
Robert Rhodes
Yes
Yes
Yes
Yes

While we like what the SDT has done in providing clarification in R1.2, 1.3 and 3, we feel there are other issues that need to be addressed in Requirement 3. While the SDT is working on Requirement 3, it is an excellent time to go ahead and address these concerns. We have listed them below. Recognizing that these issues may be beyond the scope of the SAR in responding to the request for clarification from FMPP, these items are worthy of consideration. We feel that while a team is assembled to address other issues in the standard, that these specific issues should also be reviewed as well. The VSLs for R3 appear to need some work. The lack of providing 'any' protective relay information in the Low VSL is actually worse than not providing 'all' the protective relay information in the Severe VSL. We suggest replacing 'any' in the Low VSL with 'some'. The use of the term operating personnel gives us concern in determining what is the scope of that audience. Typically, auditors look at System Operators as being that group to which the information is addressed. However, on occasion, an auditor will include others in that category such as plant operators, field personnel, etc. We need clarification on exactly what is the scope of operating personnel. If it is intended to be only the System Operators, that is what the requirement should say. If not, we need to understand what is the breadth of personnel to include. We also have concerns about the potential for expanding the obligations of System Operators to inform others rather than being the target of that training/information. This is based upon the use of operator logs and voice recordings as evidence that the dissemination of information has actually taken place. We would also ask the SDT if they could clarify that the information provided in R3 is training information and not real-time operating information regarding serviceability of protective relay schemes. Additionally, we have concerns regarding the scope of the technical information called for in the requirement , especially with regards to what is 'appropriate'. The SDT's interpretation of and our interpretation of what is appropriate may be different. We suggest that the SDT eliminate the ambiguity and provide a defined scope of what information should be included.

Group

ACES Power Marketing Standards Collaborators

Jason L. Marshall

No

(1) Conceptually, we agree with splitting out the BA and TOP requirements. However, additional changes may be warranted. Since the GOP is already obligated to notify its TOP of all generation resources available for use pursuant to R1.1, does it make sense to obligate the BA to also notify the same TOP of the same information in R1.3? Furthermore, does this requirement work as intended for a situation where a generator is pseudo-tied out to another BA which is becoming increasingly common? The problem is that use of the word "its" in R1.3 with regard to a BA informing "its" TOPs could lead to confusion. As an example, one of our members, Sunflower, has several wind farms in its BA Area that are pseudo-tied out to other BA Areas. Let's say Acme Wind Company is the GOP for a wind farm located in Sunflower's footprint and interconnected to transmission facilities owned and operated by Sunflower. Let's further assume that the Acme wind farm is pseudo-tied to KCP&L's BA. If the status of the Acme wind farm changes, they, as GOP, will contact their Host BA (KCP&L) and the Transmission Operator (Sunflower) per R1.1. Requirement 1.3 then requires the KCP&L BA to notify "its Transmission Operator(s)" of all generation resources available for use. Who do they contact about the Acme outage? KCP&L TOP? Sunflower TOP? Both? The word "its" is possessive and implies that the KCP&L BA has a link to certain Transmission Operators. How is that link defined? Is it the TOPs that are directly interconnected to the generation resources that are part of their BA? If that is the case, when would more than one TOP need to be informed of a generator outage - i.e. why does the revised Standard say Transmission Operator(s)? (2) Eliminating the need for the BA to notify the TOP in R1.3 is the cleanest solution. At a minimum, if this requirement is going to remain the wording should be changed to something like "Each BA shall inform … affected Transmission Operator(s) of all generation resources available for use." This

latter solution would be consistent with R1.2. (3) In R1.3, using the word “its” to describe which RC a BA should inform about the status of generation resources is also confusing. If ACME has another generator in Sunflower’s footprint interconnected to transmission facilities owned and operated by Sunflower that is pseudo-tied to ERCOT BA, they will notify ERCOT of a status change on this generator per R1.1. ERCOT BA would then be required to notify “its” RC which presumably is the ERCOT RC. The RC for the system in which the generator is located (SPP RC) would not be notified. Replacing “its” with “affected” again seems to make more sense. (4) While we understand that the scope of the rapid revision is fairly limited, we believe that is should be expanded to write appropriate VSLs for R1.2 and R1.3. Both requirements escalate non-compliance immediately to a Severe VSL for failure to notify the appropriate parties of all transmission or generation resources available for use regardless of the number of resources. We believe gradated VSLs could be written based on the percentage of resources for which the responsible entity did not notify the appropriate parties.
Yes
(1) We conceptually agree with the change but believe a further refinement is necessary. The changes indicate that each RC, TOP and BA is to provide “its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility”. Because some debate could arise over what responsibility an RC, BA and TOP have, we think that this should be changed to “its operating personnel with appropriate technical information concerning protective relays in its RC Area, TOP Area and BA Area, respectively”. RC Area, TOP Area, and BA Area are defined in the NERC glossary and provided more specificity over which protective relays. Otherwise, an auditor may interpret an RC or TOP having responsibility for protective relays outside of their areas because of the need to maintain a wide area view. Ultimately, the protective relays that each RC, TOP and BA has responsibility for are those in their RC Area, TOP Area and BA Area, respectively. (2) We agree with using “operating personnel” rather than the NERC defined term “System Operator”. We believe that an RC, TOP or BA should be free to have technical experts that are knowledgeable about “appropriate technical information concerning protective relays” and that are not System Operators to support compliance with this requirement. However, we suggest adding a footnote or another explanation to make clear that this is the intent of the drafting team. Otherwise, there will be opportunity for debate in the future over who constitutes “operating personnel”.
No
Since the purpose of the standard is “to ensure critical reliability parameters are monitored in real-time”, we question if R4 should have Operations Planning and Same-day Operations time horizons. The purpose of the requirement is to “predict the system’s near-term load pattern”. Given the purpose, we can deduce that this near-term time frame may be intended for the Real-time Operations horizon which covers within one hour of the actual operation.
Yes
Individual
Tony Kroskey
Brazos Electric Power Cooperative, Inc.
No
Please see the formal comments submitted by ACES Power Marketing.
No
Please see the formal comments submitted by ACES Power Marketing.

No
Please see the formal comments submitted by ACES Power Marketing.
No
Please see the formal comments submitted by ACES Power Marketing.
Individual
Michael Gammon
Kansas City Power & Light
Yes
Yes
No
The Requirement 3 time horizon is "Operations Planning" but the measure for R3 is written like the time horizon should include "Same-day Operation" and "Real-time Operations". It is recommended to modify R3 to reflect the purpose of the standard which is to monitor system conditions in real time.
Yes
Clarifying R3 for equipment an entity is responsible for was successfully completed. However, the introduciton of the measure has confused the intent for R3. Suggest modifying R3 to make it clear this is for operator awareness of real-time operating conditions: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning a loss or compromise of functional operation of protective relays for which the entity has responsiblity.

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Project 2010-INT-01

The Project 2010-INT-01 Drafting Team thanks all commenters who submitted comments on TOP-006-3 - Monitoring System Conditions. These standards were posted for a 45-day public comment period from June 14, 2012 through July 30, 2012. Stakeholders were asked to provide feedback on the standard and associated documents through a special electronic comment form. There were 32 sets of comments, including comments from approximately 143 different people from approximately 84 companies representing all 10 Industry Segments as shown in the table on the following pages.

The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03, which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

Several commenters pointed to a redundancy in Requirement R1.3. The SDT agrees with these comments and has made the clarifying change needed to remove this redundancy.

Several commenters pointed to a lack of clarity in Requirement R3. The SDT agrees with these comments and has made a clarifying change.

Commenters also pointed to the apparent redundancy in the VSL for Requirement R3. The SDT has made a clarifying change within the constraints of the rapid revision process that will be posted in the VRF/VSL non-binding poll.

The SDT has made only clarifying changes to the requirements and has not changed the context of any requirement. Therefore, the SDT is requesting that this project be moved to recirculation ballot.

All comments submitted may be reviewed in their original format on the standard's project page.

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President of Standards, Mark Lauby, at 404- 524-7077 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

[1] The appeals process is in the Standard Processes Manual: http://www.nerc.com/files/Appendix_3A_StandardsProcessesManual_20120131.pdf

Index to Questions, Comments, and Responses

The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Guy Zito	Northeast Power Coordinating Council										x

	Additional Member	Additional Organization	Region	Segment Selection
1.	Alan Adamson	New York State Reliability Coouncil, LLC	NPCC	10
2.	Carmen Agavriloai	Independent Electricity System Operator	NPCC	2
3.	Greg Campoli	New York Independent System Operator	NPCC	2
4.	Sylvain Clermont	Hydro-Quebec TransEnergie	NPCC	1
5.	Chris de Graffenried	Consolidated Edison Co. of New York, Inc.	NPCC	1
6.	Gerry Dunbar	Northeast Power Coordinating Council	NPCC	10
7.	Mike Garton	Dominion Resources Services, Inc.	NPCC	5
8.	Kathleen Goodman	ISO - New England	NPCC	2
9.	Michael Jones	National Grid	NPCC	1
10.	David Kiguel	Hydro One Networks Inc.	NPCC	1

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10

11.	Michael Lombardi	Northeast Utilities	NPCC	1
12.	Randy MacDonald	New Brunswick Power Transmission	NPCC	9
13.	Bruce Metruck	New York Power Authority	NPCC	6
14.	Silvia Parada Mitchell	NextEra Energy, LLC	NPCC	5
15.	Lee Pedowicz	Northeast Power Coordinating Council	NPCC	10
16.	Robert Pellegrini	The United Illuminating Company	NPCC	1
17.	Si-Truc Phan	Hydro-Quebec TransEnergie	NPCC	1
18.	David Ramkalawan	Ontario Power Generation, Inc.	NPCC	5
19.	Brian Robinson	Utility Services	NPCC	8
20.	Michael Schiavone	National Grid	NPCC	1
21.	Wayne Sipperly	New York Power Authority	NPCC	5
22.	Donald Weaver	New Brunswick System Operator	NPCC	2
23.	Ben Wu	Oragne and Rockland Utilities	NPCC	1
24.	Peter Yost	Consolidated Edison Co. of New York, Inc.	NPCC	3

2.	Group	WILL SMITH	MRO NSRF	x	x	x	x	x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	MAHMOOD SAFI	OPPD	MRO	1, 3, 5, 6
2.	CHUCK LAWRENCE	ATC	MRO	1
3.	TOM BREENE	WPS	MRO	3, 4, 5, 6
4.	JODI JENSON	WAPA	MRO	1, 6
5.	KEN GOLDSMITH	ALTW	MRO	4
6.	ALICE IRELAND	XCEL	MRO	1, 3, 5, 6
7.	DAVE RUDOLPH	BEPC	MRO	1, 3, 5, 6
8.	JOE DEPOORTER	MGE	MRO	3, 4, 5, 6
9.	SCOTT NICKELS	RPU	MRO	4
10.	TERRY HARBOUR	MEC	MRO	1, 3, 5, 6
11.	MARIE KNOX	MISO	MRO	2
12.	LEE KITTELSON	OTP	MRO	1, 3, 4, 5
13.	SCOTT BOS	MPW	MRO	1, 3, 5, 6
14.	TONY EDDLEMAN	NPPD	MRO	1, 3, 5
15.	MIKE BRYTOWSKI	GRE	MRO	1, 3, 5, 6
16.	DAN INMAN	MPC	MRO	1, 3, 5, 6

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
17. ERIC RUSKAMP	LES	MRO 1, 3, 5, 6										
3. Group	Chris Higgins	Bonneville Power Administration	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Tedd	Snodgrass	WECC	1
2.	Rich	Ellison	WECC	1

4. Group	Emily Pennel	Southwest Power Pool Regional Entity										x

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Allen	City Utilities of Springfield	SPP	1, 4
2.	Doug Callison	Grand River Dam Authority	SPP	1, 3, 5
3.	Michelle Corley	Cleco Power	SPP	1, 3, 5
4.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5
5.	Allen Klassen	Westar Energy	SPP	1, 3, 5, 6
6.	Tiffany Lake	Westar Energy	SPP	1, 3, 5, 6
7.	Tara Lightner	Sunflower Electric Power Corporation	SPP	1
8.	Kyle McMenamin	Xcel Energy	SPP	1, 3, 5, 6
9.	Jerry McVey	Sunflower Electric Power Corporation	SPP	1
10.	Terri Pyle	Oklahoma Gas & Electric	SPP	1, 3, 5
11.	Bryan Taggart	Westar Energy	SPP	1, 3, 5, 6

5. Group	Connie Lowe	Dominion	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Louis Slade		RFC	5, 6
2.	Mike Garton		NPCC	5, 6
3.	Michael Crowley		SERC	1, 3
4.	Randi Heise		MRO	5, 6

6. Group	Greg Rowland	Duke Energy	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Doug Hils	Duke Energy	RFC	1
2.	Ed Ernst	Duke Energy	SERC	3
3.	Dale Goodwine	Duke Energy	SERC	5
4.	Greg Cecil	Duke Energy	RFC	6

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
7.	Group	Al DiCaprio	ISO/RTO Council Standards Review Committee		x								

	Additional Member	Additional Organization	Region	Segment Selection
1.	Greg Campoli	NYISO	NPCC	2
2.	Kathleen Goodman	ISO-NE	NPCC	2
3.	Terry Bilke	MISO	MRO	2
4.	Steve Myers	ERCOT	ERCOT	2
5.	Ben Li	IESO	NPCC	2
6.	Don Weavers	NBSO	NPCC	2

8.	Group	Wayne Van Liere	SERC OC Standards Review Group			x							

	Additional Member	Additional Organization	Region	Segment Selection
1.	Jeff Harrison	AECI	SERC	1, 3, 5, 6
2.	Melvin Roland	Southern Co.	SERC	1, 5
3.	Kelly Casteel	TVA	SERC	1, 3, 5, 6
4.	Vicky Budreau	Santee Cooper	SERC	1, 3, 5, 6
5.	Jake Miller	Dynegy	SERC	5
6.	Jim Case	Entergy	SERC	1, 3, 6
7.	Brad Young	LGE/KU	SERC	3
8.	Troy Willis	GA Transmission	SERC	1
9.	Scott Brame	NCEMCS	SERC	1, 3, 4, 5
10.	Tim Hattaway	PowerSouth	SERC	1, 5
11.	Sammy Roberts	Progress Energy	SERC	1, 3, 5, 6
12.	Marc Butts	Southern Co.	SERC	1, 5
13.	Todd lucas	Southern Co.	SERC	1, 5
14.	Cindy Martin	Southern Co.	SERC	1, 5
15.	Dan Roethemeyer	Dynegy	SERC	5
16.	Richard Jackson	Alcoa	SERC	5, 6, 7
17.	Steve Corbin	SERC	SERC	10
18.	Andy Burch	EEI	SERC	5
19.	Robert Thomasson	BREC	SERC	1
20.	Randy Castello	Southern Co.	SERC	1, 5
21.	Mike Bryson	PJM	SERC	2

Group/Individual	Commenter	Organization	Registered Ballot Body Segment									
			1	2	3	4	5	6	7	8	9	10
22. John Troha	SERC	SERC 10										
9. Group	Steve Rueckert	Western Electricity Coordinating Council										x

	Additional Member	Additional Organization	Region	Segment Selection
1.	Phil O'Donnell	WECC	WECC	10

10. Group	Stephen Berger	PPL Corporation NERC Registered Affiliates	x		x		x	x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Brenda L. Truhe	PPL Electric Utilities Corporation	RFC	1
2.	Brent Ingebrigston	LG&E and KU Services Company	SERC	3
3.	Annette M. Bannon	PPL Generation, LLC on behalf of its Supply NERC Registered Entities	RFC	5
4.			WECC	5
5.	Elizabeth A. Davis	PPL EnergyPlus, LLC	MRO	6
6.			NPCC	6
7.			SERC	6
8.			SPP	6
9.			RFC	6
10.			WECC	6

11. Group	Robert Rhodes	SPP Standards Review Group		x								

	Additional Member	Additional Organization	Region	Segment Selection
1.	John Allen	City Utilities of Springfield	SPP	1, 4
2.	Doug Callison	Grand River Dam Authority	SPP	1, 3, 5
3.	Michelle Corley	Cleco Power	SPP	1, 3, 5
4.	Tony Eddleman	Nebraska Public Power District	MRO	1, 3, 5
5.	Allen Klassen	Westar Energy	SPP	1, 3, 5, 6
6.	Tiffany Lake	Westar Energy	SPP	1, 3, 5, 6
7.	Tara Lightner	Sunflower Electric Power Corporation	SPP	1
8.	Kyle McMenamin	Xcel Energy	SPP	1, 3, 5, 6
9.	Jerry McVey	Sunflower Electric Power Corporation	SPP	1
10.	Terri Pyle	Oklahoma Gas & Electric	SPP	1, 3, 5
11.	Bryan Taggart	Westar Energy	SPP	1, 3, 5, 6

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
12.	Group	Jason L. Marshall	ACES Power Marketing Standards Collaborators						x				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Shari Heino	Brazos Electric Power Cooperative	ERCOT	1, 5
2.	Bob Solomon	Hoosier Energy	RFC	1
3.	Megan Wagner	Sunflower Electric Power Corporation	SPP	1
4.	Forrest Brock	Western Farmers Electric Cooperative	SPP	1, 5
5.	John Shaver	Arizona Electric Power Cooperative	WECC	4, 5
6.	John Shaver	Southwest Transmission Cooperative, Inc.	WECC	1

13.	Individual	Jim Eckelkamp	Progress Energy	x		x		x	x				
14.	Individual	DeWayne Scott	Tennessee Valley Authority	x		x		x	x				
15.	Individual	Shammara Hasty	Southern Company	x		x		x	x				
16.	Individual	Scott McGough	Georgia System Operations Corporation			x							
17.	Individual	Michael Falvo	Independent Electricity System Operator		x								
18.	Individual	Mace Hunter	Lakeland Electric	x		x		x					
19.	Individual	Thad Ness	American Electric Power	x		x		x	x				
20.	Individual	RoLynda Shumpert	South Carolina Electric and Gas	x		x		x	x				
21.	Individual	Wayne Sipperly	New York Power Authority	x		x		x	x				
22.	Individual	Terri Pyle	Oklahoma Gas & Electric	x		x		x					
23.	Individual	Patrick Brown	Essential Power, LLC					x					
24.	Individual	Jonathan Appelbaum	The United illuminating Company	x									
25.	Individual	Don Jones	Texas Reliability Entity										x
26.	Individual	Scott Bos	Muscatine Power and Water	x		x		x	x				
27.	Individual	Andrew Z. Pusztai	American Transmission Company	x									
28.	Individual	Jack Stamper	Clark Public Utilities	x									
29.	Individual	Darryl Curtis	Oncor Electric Delivery	x									
30.	Individual	Chris Mattson	Tacoma Power	x		x	x	x	x				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
31.	Individual	Tony Kroskey	Brazos Electric Power Cooperative, Inc.	x									
32.	Individual	Michael Gammon	Kansas City Power & Light	x		x		x	x				

1. **The SDT has altered Requirement R1.2 to apply solely to Transmission Operators and transmission information, while creating a new Requirement R1.3 to apply solely to Balancing Authorities and generation information. Do you agree with these changes? This includes accompanying Measures, data retention, and VSLs. If not, please provide a detailed explanation and suggested changes.**

Summary Consideration: The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03, which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

Several commenters pointed to a redundancy in Requirement R1.3. The SDT agrees with these comments and has made the clarifying change needed to remove this redundancy.

R1.3 Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use.

Organization	Yes or No	Question 1 Comment
Dominion	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. Dominion suggests the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, Dominion feels that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
SERC OC Standards Review Group	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. We suggest the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked

Organization	Yes or No	Question 1 Comment
		to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, we feel that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
Tennessee Valley Authority	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity. We suggest the word "all" be deleted in R1, R1.1, R1.2and R1.3 and that R1 should be linked to R1.1, R1.2 and R1.3 as follows: Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use "as specified in R1.1, R1.2 and R1.3". Alternatively, we feel that considerable overlap exists in requirements between R1 of TOP-006-2 and R14, R16 and R17 of TOP-002-2b and R1 can therefore be eliminated.
PPL Corporation NERC Registered Affiliates	No	The splitting of the previous R1.2 into a revised R1.2 and a new R1.3 is a good start but falls short of adding the necessary clarity.The TOP (or GOP) cannot be held responsible for transmission (or generation) resources outside of its area of responsibility (i.e. outside its jurisdiction or not under its control). The revised R1.2 and new R1.3 do not state this distinction and are thus too broad. Suggest R1 be revised to:Each Transmission Operator and Balancing Authority shall know the status of generation and transmission resources available for use as specified in R1.1 and R1.2. Suggest R1.2 be revised to:Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of transmission resources under its control which are available for use.Suggest R1.3 be revised to:Each Balancing Authority shall inform its Reliability Coordinator and Transmission Operator of generation resources within its Balancing Authority Area which are available for use.
Response: The scope presented to the SDT under the rapid revision process only authorized changes to Requirements R1.2 and R3.		

Organization	Yes or No	Question 1 Comment
No change made.		
Duke Energy	No	(1) R1.2 - The TOP should continue to inform its BA about transmission resources available for use. The Functional Model states that the Transmission Operator "15. Provides Real-time operations information to the Reliability Coordinator and Balancing Authority." Also, since TOPs can't determine which other TOPs may be "affected", we believe the TOP should inform "adjacent" TOPs about transmission resources available for use. Reword R1.2 as follows: " Each Transmission Operator shall inform its Reliability Coordinator, Balancing Authority and adjacent Transmission Operators of all transmission resources available for use." (2) M2 - Revise to be consistent with our suggested change to R1.2 above. (3) M5 - Revise to be consistent with our suggested change to R3 below. (4) VSLs for R1.2 and R3 - Revise to be consistent with our suggested changes to R1.2 and R3. Also, the Lower and Severe VSLs for R3 appear to be reversed (i.e. failure to provide "any" information is a more serious violation than a failure to provide "all" information).
Response: In general, the Transmission Operator is responsible for transmission and for reporting transmission information to the Reliability Coordinator. Similarly, the Balancing Authority is responsible for generation and for reporting generation information to the Reliability Coordinator. OASIS is the mechanism for providing transmission information to other parties. The SDT believes that the Transmission Operator will know who the affected Transmission Operators are and that changing the phrase to "adjacent" will force unneeded and unwanted information on some Transmission Operators. No change made. Since the requirement was not changed, there is no corresponding change to the measure. Please see response to Requirement R3 comments. Since the requirement didn't change, there is no corresponding change to the VSL.		

Organization	Yes or No	Question 1 Comment
Please see response to Requirement R3 comments.		
Lakeland Electric	No	I agree with the changes to R1.2. The new R1.3 is redundant in requiring the BA to inform it's TO of all generator resources available for use when R1.1 requires the GO to inform it's TO of all generator resources available for use. Redundant information would be passing through a third party, the BA.
Western Electricity Coordinating Council	No	1.1 Requires Generator Operator to inform both BA and TOP of Generation Status while 1.3 Requires BA to inform TOP of Generation Status. This is duplicative. IF GOP must inform both TOP and BA there is no need to require BA to inform TOP. Preferable change would be for GOP to only inform BA and require BA to inform TOP. but could also work to have GOP inform both functions and remove requirement for BA to inform TOP from 1.3.
Clark Public Utilities	Yes	R1.3 is confusing to me. My utility is a TOP but not a BA. We have a transmission system which our own personnel operate and we have generation connected to our transmission. Our entire transmission system (with its connected generation) is located within the metering boundaries of one BA. R1.1 states our generator is supposed to notify my utility's TOP organization as well as our BA of its availability. I have no problem with R1.1. R1.3 states the BA is supposed to notify its RC and its TOP. Our BA is also a TOP for its own transmission facilities. Our generator is not attached directly to our BA's transmission facilities but to our transmission facilities. Is R1.3 telling the BA it is supposed to notify it own TOP organization of the generator availability (generator attached to my utility's transmission system)? Chances are the people operating our BA are the same people operating our BA's transmission system so this notification seems kind of pointless. In the alternative, is R1.3 telling the BA it needs to notify the TOP that operates the transmission system the generator is connected to? The generator already did that in R1.1 so this would also seem to be pointless. Does the SDT intend for R1.3 to require the BA to notify its RC and "affected

Organization	Yes or No	Question 1 Comment
		TOPs?" This make a little more sense than the current wording. If this is the intent of the SDT the wording doesn't do it. It seems to me that if per R1.1 the generator notifies it's BA and its TOP and then per R1.3 the BA notifies its RC, everyone has been notified of the generator availability and therefore, R1.3 would not need to include a TOP notification. This issue is not critical to me since it provides a confusing requirement for the BA and my utility is not a BA. Therefore I plan to vote in the affirmative on the draft but the SDT should consider cleaning R1.3 up a bit to make it clear what TOP is supposed to be notified by the BA in R1.3.
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use.		
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	No	(1) Conceptually, we agree with splitting out the BA and TOP requirements. However,additional changes may be warranted. Since the GOP is already obligated to notify its TOP of all generation resources available for use pursuant to R1.1, does it make sense to obligate the BA to also notify the same TOP of the same information in R1.3? (2) Furthermore, does this requirement work as intended for a situation where a generator is pseudo-tied out to another BA which is becoming increasingly common? The problem is that use of the word "its" in R1.3 with regard to a BA informing "its" TOPs could lead to confusion. As an example, one of our members, Sunflower, has several wind farms in its BA Area that are pseudo-tied out to other BA Areas. Let's say Acme Wind Company is the GOP for a wind farm located in Sunflower's footprint and interconnected to transmission facilities owned and

Organization	Yes or No	Question 1 Comment
		operated by Sunflower. Let's further assume that the Acme wind farm is pseudo-tied to KCP&L's BA. If the status of the Acme wind farm changes, they, as GOP, will contact their Host BA (KCP&L) and the Transmission Operator (Sunflower) per R1.1. Requirement 1.3 then requires the KCP&L BA to notify "its Transmission Operator(s)" of all generation resources available for use. Who do they contact about the Acme outage? KCP&L TOP? Sunflower TOP? Both? The word "its" is possessive and implies that the KCP&L BA has a link to certain Transmission Operators. How is that link defined? Is it the TOPs that are directly interconnected to the generation resources that are part of their BA? If that is the case, when would more than one TOP need to be informed of a generator outage - i.e. why does the revised Standard say Transmission Operator(s)? (3) Eliminating the need for the BA to notify the TOP in R1.3 is the cleanest solution. At a minimum, if this requirement is going to remain the wording should be changed to something like "Each BA shall inform ... affected Transmission Operator(s) of all generation resources available for use." This latter solution would be consistent with R1.2. (4) In R1.3, using the word "its" to describe which RC a BA should inform about the status of generation resources is also confusing. If ACME has another generator in Sunflower's footprint interconnected to transmission facilities owned and operated by Sunflower that is pseudo-tied to ERCOT BA, they will notify ERCOT of a status change on this generator per R1.1. ERCOT BA would then be required to notify "its" RC which presumably is the ERCOT RC. The RC for the system in which the generator is located (SPP RC) would not be notified. Replacing "its" with "affected" again seems to make more sense. (5) While we understand that the scope of the rapid revision is fairly limited, we believe that is should be expanded to write appropriate VSLs for R1.2 and R1.3. Both requirements escalate non-compliance immediately to a

Organization	Yes or No	Question 1 Comment
		Severe VSL for failure to notify the appropriate parties of all transmission or generation resources available for use regardless of the number of resources. We believe gradated VSLs could be written based on the percentage of resources for which the responsible entity did not notify the appropriate parties.
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use. The indicated change to Requirement R1.3 will alleviate this concern. The indicated change to Requirement R1.3 will alleviate this concern. Pseudo-ties cover generators that exist outside of the Balancing Authority Area. The Generator Operator will report to the Transmission Operator in whose area it is physically connected in. No change made. The VSL for Requirement R1.2 was already approved and the SDT didn't change anything there. The VSL for Requirement R1.3 was copied from the approved VSL for Requirement R1.2. No change made.		
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
The United illuminating Company	No	The phrasing for R1 can still be interpreted to apply to both Transmission Operators and Balancing Authorities even with the proposed changes to the sub-requirement. We have seen NERC Compliance apply the requirements at the Requirement level without regard to the subrequirements phrasing. We suggest adding an additional phrase to R1 such that R1 states, Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use AS SPECIFIED FURTHER IN THE SUB_REQUIREMENTS. In the alternative, each sub

Organization	Yes or No	Question 1 Comment
		requirement could be relabeled as its own requirement.
Response: The scope presented to the SDT under the rapid revision process only authorized changes to Requirements R1.2 and R3. Furthermore, the suggested wording change does nothing to satisfy the situation cited. By their nature and grammatical definition, sub-requirements are nested under requirements and must be taken into context as part of the requirement. No change made.		
Southern Company	Yes	The GOP is already required to provide information on generating unit availability to the TOP under R1.1. Requiring the BA to also provide this same information to the TOP in R1.3 appears to be unnecessarily redundant. Also, the SDT should consider the redundancy of R1.1 and R1.3 to requirements in other standards that specify information exchange on generating resource availability and capability (e.g., TOP-002-2b, R14.; TOP-003-1, R1.; IRO-010-1a, R3.; etc.)
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use. Such changes are not within scope of this rapid revision project. No change made.		
American Transmission Company	Yes	ATC is encouraged by the action of the SDT in splitting the responsibilities of BAs and TOPs rather than having one requirement for both functions. ATC is further recommending that NERC consider doing this for other Reliability Standards where BAs and TOPs are obligated to same requirements in one requirement, and revise in the same manner.
Response: In order to accomplish this, a Standards Authorization Request (SAR) is needed. The SDT encourages ATC to submit such a request which should include the specific instances where ATC feels such a correction should be made. It should be noted that such changes were within scope of Project 2007-03 and have been made in the Board of Trustees approved changes to the		

Organization	Yes or No	Question 1 Comment
TOP family of standards.		
Muscatine Power and Water	Yes	Thank you
MRO NSRF	Yes	The NSRF agrees, thank you.
Northeast Power Coordinating Council	Yes	
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Bonneville Power Administration	Yes	
Southwest Power Pool Regional Entity	Yes	
ISO/RTO Council Standards Review Committee	Yes	
SPP Standards Review Group	Yes	
Independent Electricity System Operator	Yes	
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	

Organization	Yes or No	Question 1 Comment
Essential Power, LLC	Yes	
Texas Reliability Entity	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Kansas City Power & Light	Yes	
Response: Thank you for your support.		

2. The SDT has revised Requirement R3 to show that entities need only supply information for equipment they are responsible for and not for others' equipment. Do you agree with this change? If not, please provide a detailed explanation and suggested changes.

Summary Consideration: The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03 which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

Several commenters pointed to a lack of clarity in Requirement R3. The SDT agrees with these comments and has made a clarifying change.

Commenters also pointed to the apparent redundancy in the VSL for Requirement R3. The SDT has made a clarifying change within the constraints of the rapid revision process that will be posted in the VRF/VSL non-binding poll.

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.

R3 VSL	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.

Organization	Yes or No	Question 2 Comment
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Northeast Power Coordinating Council	No	The requirement to provide “appropriate technical information” should be revised to require applicable operational information.
Southwest Power Pool Regional Entity	No	"Responsibility" is not the appropriate word in R3 and M5. In R3 and M5, SPP RE recommends stating "...appropriate technical information concerning protective relays in the entity’s footprint. "
Response: The SDT does not see any additional clarification with the suggested wording change of ‘appropriate’ to ‘applicable’. No change made. The SDT has clarified the wording of the requirement. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
Dominion	No	The R3 revision is an improvement but is still too broad as “appropriate technical information” could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it).Dominion believes that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.

Organization	Yes or No	Question 2 Comment
SERC OC Standards Review Group	No	The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it).We also believe that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.
PPL Corporation NERC Registered Affiliates	No	The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does not how it does it).Suggested language:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide System Operators with appropriate information concerning the functions of protective relays to allow such personnel to perform their real-time operating duties on protective relays for which the entity has responsibility.
Tennessee Valley Authority	No	The R3 revision is an improvement but is still too broad as "appropriate technical information" could mean the detailed specifications of a relay or what protective/operating functions it performs. Operating personnel need to know the purpose and function of relays but not the internal workings of the relay (i.e. what the relay does, not how it does it).We also believe that the language in R3 is duplicated in Standard PRC-001, R1; therefore, R3 can be eliminated - if not, it should be rewritten as follows:R3: Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate information concerning the functions of protective relays for which the entity has responsibility.

Organization	Yes or No	Question 2 Comment
Duke Energy	No	PRC-001-2 Requirement R1 states "Each Transmission Operator, Balancing Authority, and Generator Operator shall be familiar with the purpose and limitations of protection system schemes applied in its area. [Violation Risk factor: High][Time Horizon: Operations Planning, Same-day Operations, Real-time Operations] . We believe that this requirement is redundant with TOP-006-3 except for the RC, so we suggest that R3 be rewritten to apply only to the RC. Since the phrases "its operating personnel" and "appropriate technical information" lack clarity needed for effective compliance, we propose that the rewrite should use wording similar to PRC-001-2 R1, as follows: "Each Reliability Coordinator shall be familiar with the purpose and limitations of protection system schemes applied in its area." Alternatively, since PRC-001-2 is now being revised to include just R1, TOP-006-3 could be revised to include the RC, TOP, BA and GOP, and PRC-001-2 could then be retired.
Response: The scope of the rapid revision process provided to the SDT focused solely on the issue of the information to be provided within the scope of TOP-006-3, Requirement R3, and does not provide the latitude suggested in the comments. No change made.		
ISO/RTO Council Standards Review Committee	No	This requirement applies to RC, TOP and BA, and these entities have no responsibilities for the design or proper operation of the protective relays. These entities are responsible for meeting their respective, applicable standard requirements. Some of the tasks these entities perform may require an understanding of the protective relays, and this is the information that needs to be provided to the operating personnel. We therefore suggest the following alternative language to R3: R3. Each RC, TOP, and BA shall provide its operating personnel with technical information concerning protective relays that is related to the respective entity's responsibility for meeting NERC standards.
Response: The SDT agrees with the interpretation of the nature of the requirement but does not believe that any additional clarity is supplied by the suggested wording. However, the SDT has made clarifying changes based on your comment and the comments of others. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with		

Organization	Yes or No	Question 2 Comment
appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
The United illuminating Company	No	UI agrees with the concept but disagrees with the phrasing, for which the entity has responsibility. Responsibility to do what? Responsibility to operate or responsibility to build, or responsibility to maintain etc. Was the intent to provide operating personnel information of protection systems deployed in the operating area which impacts the functions the Entity registered for.
Western Electricity Coordinating Council	No	Change does not provide the clarity that is desired. This would require determining "responsibility" for protection systems between RC and TOP. In its role as RC with a wide area view what is its responsibility for a protection system as opposed to the TOP. Within a TOP/BA footprint what Protections system "responsibility" is split between these two functions. A BA should be as interested in Generator Protection systems as any Transmission Protection systems. Do not believe this change is required as R3 already identified the word "appropriate" technical information.
Response: The SDT has clarified the wording of the requirement. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
Texas Reliability Entity	No	Responsibility is one aspect to consider but impact to the area of the responsible entities in question is as important to consider. With the proposed wording it appears that Reliability Coordinators and Balancing Authorities, in general, will not provide any technical information to their personnel concerning protective relays. Determining

Organization	Yes or No	Question 2 Comment
		the extent of "responsibility" as used here is ambiguous and difficult to determine. Does an SPS owned by a Generator Owner, Transmission Owner, or Distribution Provider meet the intent of the "responsibility" phrase for the Reliability Coordinator and Transmission Operator? Suggest changing the wording to "Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays WITHIN OR IMPACTING THEIR AREA(S)." The VSLs for R3 seem inappropriate in that a Lower VSL is applicable if the responsible entity failed to provide "any" appropriate technical information yet a Severe VSL is applicable if the responsible entity failed to provide "all" appropriate technical information. We suggest you revise this to use less ambiguous terminology.

Response: The SDT has clarified the wording of the requirement.

> **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.

Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective

Organization	Yes or No	Question 2 Comment
		concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	Yes	(1) We conceptually agree with the change but believe a further refinement is necessary. The changes indicate that each RC, TOP and BA is to provide "its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility". Because some debate could arise over what responsibility an RC, BA and TOP have, we think that this should be changed to "its operating personnel with appropriate technical information concerning protective relays in its RC Area, TOP Area and BA Area, respectively". RC Area, TOP Area, and BA Area are defined in the NERC glossary and provided more specificity over which protective relays. Otherwise, an auditor may interpret an RC or TOP having responsibility for protective relays outside of their areas because of the need to maintain a wide area view. Ultimately, the protective relays that each RC, TOP and BA has responsibility for are those in their RC Area, TOP Area and BA Area, respectively. (2) We agree with using "operating personnel" rather than the NERC defined term "System Operator". We believe that an RC, TOP or BA should be free to have technical experts that are knowledgeable about "appropriate technical information

Organization	Yes or No	Question 2 Comment
		concerning protective relays" and that are not System Operators to support compliance with this requirement. However, we suggest adding a footnote or another explanation to make clear that this is the intent of the drafting team. Otherwise, there will be opportunity for debate in the future over who constitutes "operating personnel".
Response: The SDT has clarified the wording of the requirement. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. The SDT agrees. This is what was intended.		
Southern Company	Yes	The SDT effectively addresses the ambiguity in R3 with respect to responsibility. However, we recommend that the SDT clarify what constitutes "appropriate technical information" concerning protective relays.
Response: Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. No change made.		
American Transmission Company	Yes	Since it is acklowledged there would be double jeopardy with PRC-001 R1 until Project 2007-03 Real-time Operations is approved and TOP-006 R3 is retired, ATC recommends deleting R3 of TOP-006-2 at this time and introducing the Reliability Coordinator as an Applicable Function within PRC-001-2 and include as part of PRC-001-2 R1.
Response: The SDT is not aware of any 'acknowledgement' that PRC-001-1.1, Requirement R1 presents a double jeopardy situation with regard to TOP-006-3, Requirement R3. The scope of the rapid revision process provided to the SDT focused solely on the issue of the information to be provided within the scope of TOP-006-3, Requirement R3, and does not provide the latitude suggested in the comment. No change made.		

Organization	Yes or No	Question 2 Comment
Muscatine Power and Water	Yes	Thank you
MRO NSRF	Yes	The NSRF agrees, thank you.
Bonneville Power Administration	Yes	
SPP Standards Review Group	Yes	
Independent Electricity System Operator	Yes	
Lakeland Electric	Yes	
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	
Essential Power, LLC	Yes	
Clark Public Utilities	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Kansas City Power & Light	Yes	

Organization	Yes or No	Question 2 Comment
Response: Thank you for your support.		

3. The SDT has supplied suggested Time Horizons for all requirements. Do you agree with these assignments? If not, please provide a detailed explanation and suggested changes.

Summary Consideration: In keeping with the stated purpose of the Reliability Standard, the SDT has changed the Time Horizon for Requirements R3 and R4 to Real-time Operations.

Organization	Yes or No	Question 3 Comment
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	No	Since the purpose of the standard is "to ensure critical reliability parameters are monitored in real-time", we question if R4 should have Operations Planning and Same-day Operations time horizons. The purpose of the requirement is to "predict the system's near-term load pattern". Given the purpose, we can deduce that this near-term time frame may be intended for the Real-time Operations horizon which covers within one hour of the actual operation.
Response: The SDT agrees and has made the change to the Time Horizon for Requirement R4 so that it only applies to Real-time Operation.		
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
Kansas City Power & Light	No	The Requirement 3 time horizon is "Operations Planning" but the measure for R3 is written like the time horizon should include "Same-day Operation" and "Real-time Operations". It is recommended to modify R3 to reflect the purpose of the standard which is to monitor system conditions in real time.
Response: The SDT agrees and has made the change to the Time Horizon for Requirement R3 so that it only applies to Real-time		

Organization	Yes or No	Question 3 Comment
Operations.		
Muscatine Power and Water	Yes	Thank you
MRO NSRF	Yes	The NSRF agrees, thank you.
Bonneville Power Administration	Yes	
Southwest Power Pool Regional Entity	Yes	
Dominion	Yes	
Duke Energy	Yes	
ISO/RTO Council Standards Review Committee	Yes	
Western Electricity Coordinating Council	Yes	
SPP Standards Review Group	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Lakeland Electric	Yes	

Organization	Yes or No	Question 3 Comment
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	
Essential Power, LLC	Yes	
The United illuminating Company	Yes	
Texas Reliability Entity	Yes	
American Transmission Company	Yes	
Clark Public Utilities	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Northeast Power Coordinating Council	Yes	
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Response: Thank you for your support.		

4. The SDT has supplied an Implementation Plan for this project. Do you agree with this plan? If not, please provide a detailed explanation and suggested changes.

Summary Consideration: The only negative response supplied here has no detailed explanation provided and refers to question 5. No changes were made due to comments to this question.

Organization	Yes or No	Question 4 Comment
Georgia System Operations Corporation	No	See Comment no. 5
Response: Please see response to comment 5.		
MRO NSRF	Yes	The NSRF agrees, thank you.
Muscatine Power and Water	Yes	Thank you
Bonneville Power Administration	Yes	
Southwest Power Pool Regional Entity	Yes	
Dominion	Yes	
Duke Energy	Yes	
ISO/RTO Council Standards Review Committee	Yes	
Western Electricity	Yes	

Organization	Yes or No	Question 4 Comment
Coordinating Council		
SPP Standards Review Group	Yes	
Brazos Electric Power Cooperative, Inc.	No	Please see the formal comments submitted by ACES Power Marketing.
ACES Power Marketing Standards Collaborators	Yes	
Southern Company	Yes	
Independent Electricity System Operator	Yes	
Lakeland Electric	Yes	
American Electric Power	Yes	
South Carolina Electric and Gas	Yes	
Oklahoma Gas & Electric	Yes	
Essential Power, LLC	Yes	
The United illuminating Company	Yes	
American Transmission Company	Yes	

Organization	Yes or No	Question 4 Comment
Clark Public Utilities	Yes	
Oncor Electric Delivery	Yes	
Tacoma Power	Yes	
Kansas City Power & Light	Yes	
Northeast Power Coordinating Council	Yes	
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Response: Thank you for your support.		

5. If you have any other comments on this Standard that you haven't already mentioned above, please provide them here keeping in mind the limited scope of this rapid development project:

Summary Consideration: The SDT reminds the industry that it was working under the constraints of the rapid revision project and that only those items authorized in the rapid revision project SAR can be changed.

The SDT would also like to point out that some of the comments made here are addressed in Project 2007-03, which dealt with clarifying requirement language and eliminating redundancy in the TOP standards. This project has been approved by the NERC Board of Trustees.

No new changes were made due to comments to this question.

Organization	Yes or No	Question 5 Comment
Bonneville Power Administration		BPA thanks you for the opportunity to comment on the Rapid Revision of TOP-006 and supports the standard as written with no other comments or concerns.
Response: Thank you for your support.		
New York Power Authority		NYPA is supporting the comments submitted by the NPCC Regional Standards Committee (RSC).
Northeast Power Coordinating Council		CAN-0026 dated Dec. 9, 2011 should be withdrawn because it expanded the scope to include protective relays regardless of ownership or maintenance responsibility that may impact the entity.
Response: CANs are reviewed periodically and appropriate actions, such as withdrawal, are made as new standards and requirements go into effect.		
Kansas City Power & Light		Clarifying R3 for equipment an entity is responsible for was successfully completed. However, the introduciton of the measure has confused the intent for R3. Suggest

Organization	Yes or No	Question 5 Comment
		modifying R3 to make it clear this is for operator awareness of real-time operating conditions:Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning a loss or compromise of functional operation of protective relays for which the entity has responsiblity.
Response: The SDT has made a clarifying change to the wording. **R3**. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively.		
Dominion		Dominion suggests in M3 where "Transmission Operators" is referenced this be changed to read as "Transmission Operator(s)".
Response: The SDT believes that the two wordings are identical and, thus, no change is needed.		
Western Electricity Coordinating Council		In 1.1 the GO is required to inform its Host BA of all generation resources available for use, and in 1.3 the BA is required to inform its RC and TOPs of all generation resources available for use. Is there any need for other BAs to be informed of generation resources available for use?
Response: The SDT agrees and, in the interest of clarification and lack of duplication, has deleted Transmission Operator. **R1.3** Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use.		
MRO NSRF		In the Table of Compliance Elements under the R3 row, it appears the criteria for Lower VSL and Severe VSL are the same. Currently in the Lower VSL column, it states the responsible entity failed to provide any of the information; and, in the severe, it states the responsible entity failed to provide all of the information. If an entity fails to provide any of the information, there is a perception they can't provide any of the

Organization	Yes or No	Question 5 Comment
		information at all, which is very similar to failing to provide all. Recommend the word "any" be changed to "some" in the Lower VSL column.
Muscatine Power and Water		MPW would like to point out that in the Table of Compliance Elements under the R3 row, it appears the criteria for Lower VSL and Severe VSL are the same. Currently in the Lower VSL column, it states the responsible entity failed to provide any of the information; and, in the severe, it states the responsible entity failed to provide all of the information. If an entity fails to provide any of the information, there is a perception they can't provide any of the information at all, which is very similar to failing to provide all. MPW recommends the word "any" be changed to "some" in the Lower VSL column.

Response: Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL		The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission

Organization	Yes or No	Question 5 Comment
		Transmission Operator Area, and the Balancing Authority to their operating personnel.
Progress Energy		PGN supports the comments submitted by Duke
Response: Please see responses provided to Duke comments in questions 1 – 4.		
Oklahoma Gas & Electric		Regarding R3 and M3, it might be appropriate to provide more information on what is considered "appropriate technical information". Can we assume this is related to the requirements in the PRC-001 standard?
Response: Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. No change made.		
Georgia System Operations Corporation		The industry and the NERC Board have already approved retiring TOP-006. TOP-001 through TOP-006 are going to be replaced with new versions of TOP-001 through TOP-003. The new versions have already been filed with FERC and are pending FERC's approval. No additional time should be spent on this interpretation for TOP-006 by NERC or by the industry. This project should be closed.
Response: The new versions of TOP-001 through TOP-003 have been approved by the Board of Trustees, but have not yet been filed with FERC due to coordination issues with other projects. Once filed, FERC is under no time deadline to respond to the filing. In addition, Project 2007-03 has a 24-month implementation time frame. Therefore, the Standards Committee authorized the rapid revision project commented on here. No change made.		
PPL Corporation NERC Registered Affiliates		The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee," specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards

Organization	Yes or No	Question 5 Comment
		Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document entitled Drafting Team Guidelines that does include "default language" to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. If suggested language provided in comments 1 and 2 are adopted, Measures for R1, R1.2, R1.3 and R3 would need to be revised to be consistent with the revised language. The VSLs for R3 seem to be reversed (i.e. failure to provide any info should be Severe and failure to provide all info should be Lower).

Response: The SDT did provide the default language. No change made.

Measures have been updated as needed for changes to the requirements.

Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL		The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective

Organization	Yes or No	Question 5 Comment
		their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel. Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
SERC OC Standards Review Group		The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee", specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document entitled Drafting Team Guidelines that does include "default language" to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. The VSLs for R3 seem to be reversed (ie. failure to provide any info should be Severe and failure to provide all info should be Lower). This appears to have been in error since the initial version.
Tennessee Valley Authority		The SDT has indicated that some language has been added "bring the standard up to the current boiler plate wording approved by the Standards Committee", specifically in section A.5. (Proposed) Effective Date. It is not clear by what means the Standards Committee has developed or instructed the SDT to implement what has been indicated as "boiler plate" language. The SC has a document entitled Drafting Team Guidelines that does include "default language" to be used in developing standards. The SDT should develop standards based upon the SC approved document entitled Drafting Team Guidelines. The VSLs for R3 seem to be reversed (ie. failure to provide any info should be Severe

Organization	Yes or No	Question 5 Comment
		and failure to provide all info should be Lower). This appears to have been in error since the initial version.

Response: The SDT did provide the default language. No change made.

-Under the scope of the rapid revision process, the SDT is limited in what it can do with regard to previously approved wording. The SDT has made a clarifying change to the wording to the extent feasible within these constraints.

R3 VSL		The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.

Texas Reliability Entity		There is not a Measurement for Requirement 6.

Organization	Yes or No	Question 5 Comment
		Should “Complaint” be added in the “Compliance Monitoring and Assessment Processes” section?
Response: It is not within the scope of the SDT to supply a measurement for Requirement R6 under the rapid revision process. No change made. ‘Complaint’ is already included in that section. No change made.		
SPP Standards Review Group		While we like what the SDT has done in providing clarification in R1.2, 1.3 and 3, we feel there are other issues that need to be addressed in Requirement 3. While the SDT is working on Requirement 3, it is an excellent time to go ahead and address these concerns. We have listed them below. Recognizing that these issues may be beyond the scope of the SAR in responding to the request for clarification from FMPP, these items are worthy of consideration. We feel that while a team is assembled to address other issues in the standard, that these specific issues should also be reviewed as well. The VSLs for R3 appear to need some work. The lack of providing ‘any’ protective relay information in the Low VSL is actually worse than not providing ‘all’ the protective relay information in the Severe VSL. We suggest replacing ‘any’ in the Low VSL with ‘some’.The use of the term operating personnel gives us concern in determining what is the scope of that audience. Typically, auditors look at System Operators as being that group to which the information is addressed. However, on occasion, an auditor will include others in that category such as plant operators, field personnel, etc. We need clarification on exactly what is the scope of operating personnel. If it is intended to be only the System Operators, that is what the requirement should say. If not, we need to understand what is the breadth of personnel to include. We also have concerns about the potential for expanding the obligations of System Operators to inform others rather than being the target of that training/information. This is based upon the use of operator logs and voice recordings as evidence that the dissemination of information has actually taken place. We would also ask the SDT if they could clarify that the information provided in R3 is training information and not real-time operating information regarding serviceability of

Organization	Yes or No	Question 5 Comment
		protective relay schemes.Additionally, we have concerns regarding the scope of the technical information called for in the requirement , especially with regards to what is 'appropriate'. The SDT's interpretation of and our interpretation of what is appropriate may be different. We suggest that the SDT eliminate the ambiguity and provide a defined scope of what information should be included.
Response: SPP is correct that the indicated items are not within the scope provided to the SDT under the rapid revision process. Such changes can only be undertaken through the submittal of a SAR addressing the specific items, and the SDT encourages SPP to pursue these changes in such a manner. No change made.		

END OF REPORT

A. Introduction

1. **Title:** **Monitoring System Conditions**
2. **Number:** TOP-006-3
3. **Purpose:** To ensure critical reliability parameters are monitored in real-time.
4. **Applicability:**
   - **4.1. Functional Entities**
     - **4.1.1** Transmission Operators
     - **4.1.2** Balancing Authorities
     - **4.1.3** Generator Operators
     - **4.1.4** Reliability Coordinators
5. **(Proposed) Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays within the Reliability Coordinator Area, the Transmission Operator

Area, and the Balancing Authority Area, respectively. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement R1.1)

M2. Each Transmission Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. (Requirement R1.2)

M3. Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator of all generation resources available for use. (Requirement R1.3)

M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement R2.

M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. (Requirement R3)

M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement R4)

M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement R5)

M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement R7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

The Regional Entity shall serve as the Compliance Enforcement Authority (CEA) unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases the ERO or a Regional Entity approved by FERC or other applicable governmental authority shall serve as the CEA.

1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure 3.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure 4, 5, 7 and 8

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure 6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- 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	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority.
R1.1	Real-time Operations	Medium	N/A	N/A	N/A	The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use.
R1.3	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator of all generation resources

						available for use.
R2	Real-time Operations	High	N/A	The responsible entity monitors the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, but is not aware of the status of rotating and static reactive resources.	The responsible entity fails to monitor all of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of all rotating and static reactive resources.	The responsible entity fails to monitor any of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide some of the appropriate technical information concerning protective relays within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
R4	Operations Planning, Same-day Operations, Real-time Operations	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern, but not both.	The responsible entity failed to have both weather forecasts and past load patterns, available to predict the system's near-term load pattern.
R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the	The responsible entity failed to use monitoring equipment to bring to the

					attention of operating personnel important deviations in operating conditions, but does not have indication of the need for corrective action.	attention of operating personnel important deviations in operating conditions.
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March 23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	TBD	Rapid revision to accommodate interpretation request for Requirements R1.2 & R3	Changes to bring document format to new guidelines. Changes to Requirements R1.2 & R3. Added Time Horizons.

Standard Development Roadmap

This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.

Development Steps Completed:

1. Standards Committee approved rapid development process on January 11, 2012.

~~1.~~2. The standard was posted for initial ballot and comment on June 14, 2012.

Proposed Action Plan and Description of Current Draft:
The Standards Committee approved a rapid revision process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

Future Development Plan:

Anticipated Actions	Anticipated Date
~~Post for comment and initial ballot.~~	~~1Q12~~
1. Post for recirculation ballot.	~~2~~3Q12
2. Submit to BOT.	~~3~~4Q12

Definitions of Terms Used in Standard

This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.

There are no new or revised definitions proposed in this standard revision.

A. Introduction

1. **Title:** **Monitoring System Conditions**
2. **Number:** TOP-006-3
3. **Purpose:** To ensure critical reliability parameters are monitored in real-time.
4. **Applicability:**
   - **4.1. Functional Entities**
     - **4.1.1** Transmission Operators
     - **4.1.2** Balancing Authorities
     - **4.1.3** Generator Operators
     - **4.1.4** Reliability Coordinators
5. **(Proposed) Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator ~~and its Transmission Operator(s)~~ of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~for which the entity has responsibility~~ within the Reliability

Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. [*Violation Risk Factor: Medium*] [*Time Horizon: ~~Operations Planning~~Real-time Operations*]

> Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: ~~Operations Planning, Same-day Operation,~~ Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement R1.1)

M2. Each Transmission Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. (Requirement R1.2)

M3. Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator ~~and its Transmission Operators~~ of all generation resources available for use. (Requirement R1.3)

M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to,

computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement R2.

M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays ~~for which they have responsibility~~ within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. (Requirement R3)

M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement R4)

M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement R5)

M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement R7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

The Regional Entity shall serve as the Compliance Enforcement Authority (CEA) unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases the ERO or a Regional Entity approved by FERC or other applicable governmental authority shall serve as the CEA.

1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure 3.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure 4, 5, 7 and 8

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure 6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- 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	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority.
R1.1	Real-time Operations	Medium	N/A	N/A	N/A	The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use.
R1.3	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform its Reliability Coordinator ~~and its Transmission~~

						~~Operators~~ of all generation resources available for use.
R2	Real-time Operations	High	N/A	The responsible entity monitors the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, but is not aware of the status of rotating and static reactive resources.	The responsible entity fails to monitor all of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of all rotating and static reactive resources.	The responsible entity fails to monitor any of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The ~~responsible entity~~ Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays ~~for which it has responsibility~~ within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
R4	Operations Planning, Same-day Operations, Real-time Operations	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern,	The responsible entity failed to have both weather forecasts and past load patterns, available to predict the system's near-term load

					but not both.	pattern.
R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but does not have indication of the need for corrective action.	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March 23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	TBD	Rapid revision to accommodate interpretation request for Requirements R1.2 & R3	Changes to bring document format to new guidelines. Changes to Requirements R1.2 & R3. Added Time Horizons.

A. Introduction

1. **Title:** **Monitoring System Conditions**

2. **Number:** TOP-006-~~2~~3

3. **Purpose:** To ensure critical reliability parameters are monitored in real-time.

4. **Applicability:**

   4.1. Functional Entities

   ~~4.1.~~4.1.1 Transmission Operators.

   ~~4.2.~~4.1.2 Balancing Authorities.

   ~~4.3.~~4.1.3 Generator Operators.

   ~~4.4.~~4.1.4 Reliability Coordinators.

~~5.~~ **(Proposed) Effective Date:** ~~—~~ All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the ~~standard shall become effective on the latter of either April 1, 2009 or the first day of the first calendar quarter, three months after BOT adoption.~~

5. ~~In those jurisdictions where regulatory approval is required, the standard shall~~requirements become effective ~~on the latter of either April 1, 2009 or~~ the first day of the first calendar quarter~~, three months after applicable regulatory approval.~~ following Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each Transmission Operator and Balancing Authority shall know the status of all generation and transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.1. Each Generator Operator shall inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R1.2. Each Transmission Operator ~~and Balancing Authority~~ shall inform the Reliability Coordinator and other affected ~~Balancing Authorities and~~ Transmission Operators of all ~~generation and~~ transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

Transmission Operators deal with transmission information while Balancing Authorities deal with generation information as detailed in Functional Model v5.

R1.3. Each Balancing Authority shall inform its Reliability Coordinator of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R2. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R3. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays ~~to their operating personnel.~~within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

> Entities can only provide information related to items for which they have responsibility.

R4. Each Transmission Operator, and Balancing Authority shall have information, including weather forecasts and past load patterns, available to predict the system's near-term load pattern. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions and to indicate, if appropriate, the need for corrective action. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]

R6. Each Balancing Authority and Transmission Operator shall use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

R7. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall monitor system frequency. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]

C. Measures

M1. The Generator Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Host Balancing Authority and Transmission Operator of all generation resources available for use. (Requirement ~~1~~R1.1)

M2. ~~Each Transmission Operator and~~Each Transmission Operator shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. (Requirement R1.2)

~~**M2.**~~**M3.** Each Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic

communications, or other equivalent evidence that will be used to confirm that it informed its Reliability Coordinator ~~and other affected Balancing Authorities and Transmission Operators~~ of all generation ~~and transmission~~ resources available for use. (Requirement ~~1.2)~~ R1.3)

~~M3.~~M4. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, computer printouts or other equivalent evidence that will be used to confirm that it monitored each of the applicable items listed in Requirement ~~2.~~R2.

M5. Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, operator logs, voice recordings, electronic communications, operating instructions, training materials, or other equivalent evidence that will be used to confirm that it informed its operating personnel of appropriate technical information concerning protective relays within the Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority Area, respectively. (Requirement R3)

~~M4.~~M6. Each Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, printouts, training documents, description documents or other equivalent evidence that will be used to confirm that it has weather forecasts and past load patterns, available to predict the system's near-term load pattern. (Requirement ~~4)~~R4)

~~M5.~~M7. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a description of its EMS alarm capability, training documents, or other equivalent evidence that will be used to confirm that important deviations in operating conditions and the need for corrective actions will be brought to the attention of its operators. (Requirement ~~5~~R5)

~~M6.~~M8. Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have and provide upon request evidence that could include but is not limited to, a list of the frequency monitoring points available to the shift-operators or other equivalent evidence that will be used to confirm that it monitors system frequency. (Requirement ~~7)~~ R7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance ~~Monitoring Responsibility~~Enforcement Authority

The Regional ~~Reliability Organizations~~Entity shall ~~be responsible for compliance monitoring.~~

~~1.2.~~serve as the Compliance ~~Monitoring and Reset Time Frame~~

~~One or more of the following methods will be used to assess compliance:~~

~~- Self-certification (Conducted annually with submission according to schedule.)~~

~~- Spot Check Audits (Conducted anytime with up to 30 days notice given to prepare.)~~

~~- Periodic Audit (Conducted once every three years according to schedule.)~~

- Triggered Investigations (Notification of an investigation must be made within 60 days of an event or complaint of noncompliance. The Enforcement Authority (CEA) unless the applicable entity will have up to 30 days to prepare for the investigation. An entity may request an extension of the preparation period and the extension will be consideredis owned, operated, or controlled by the Compliance Monitor on Regional Entity. In such cases the ERO or a case Regional Entity approved by case basis.)

The Performance Reset Period FERC or other applicable governmental authority shall be 12 months from the last finding of non-compliance. serve as the CEA.

1.3.1.2. Data Retention

Each Generator Operator shall keep 90 days of historical data (evidence) for Measure 1.

Each Transmission Operator andshall keep 90 days of historical data (evidence) for Measure 2.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measure 23.

Each Reliability Coordinator, Transmission Operator and Balancing Authority shall have current documents as evidence for Measure 34, 5, 7 and 6.8

Each Transmission Operator and Balancing Authority shall have current documents as evidence of compliance to Measure 4.6.

If an entity is found non-compliant the entity shall keep information related to the noncompliance until found compliant or for two years plus the current year, whichever is longer.

Evidence used as part of a triggered investigation shall be retained by the entity being investigated for one year from the date that the investigation is closed, as determined by the Compliance Monitor,.

The Compliance Monitor shall keep the last periodic audit report and all supporting compliance data.

1.3. Compliance Monitoring and Assessment Processes

One or more of the following methods will be used to assess compliance:

- Compliance Audit
- Self-Certification
- Spot Checking
- Compliance Investigation
- Self-Reporting
- Complaint

1.4. Additional Compliance Information

None.

~~2.Violation Severity Levels:~~

Table of Compliance Elements

R # ~~R#~~	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to know the status of all generation and transmission resources available for use, even though said information was reported by the Generator Operator, Transmission Operator, or Balancing Authority.
R1.1	Real-time Operations	Medium	N/A	N/A	N/A	The Generator Operator failed to inform its Host Balancing Authority and the Transmission Operator of all generation resources available for use.
R1.2	Real-time Operations	Medium	N/A	N/A	N/A	The responsible entity failed to inform the Reliability Coordinator and other affected ~~Balancing Authorities and~~ Transmission Operators of all ~~generation and~~ transmission resources available for use.
R1.3	Real-time	Medium	N/A	N/A	N/A	The responsible entity failed to inform its

	Operations					Reliability Coordinator of all generation resources available for use.
R2	Real-time Operations	High	N/A	The responsible entity monitors the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, but is not aware of the status of rotating and static reactive resources.	The responsible entity fails to monitor all of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of all rotating and static reactive resources.	The responsible entity fails to monitor any of the applicable transmission line status, real and reactive power flows, voltage, load-tap-changer settings, and status of rotating and static reactive resources.
R3	Operations Planning	Medium	The ~~responsible entity~~Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide ~~any~~some of the appropriate technical information concerning protective relays within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.	N/A	N/A	The ~~responsible entity~~Reliability Coordinator, the Transmission Operator, or the Balancing Authority, failed to provide all of the appropriate technical information concerning protective relays within their respective Reliability Coordinator Area, the Transmission Operator Area, and the Balancing Authority to their operating personnel.
R4	Operations Planning, Same-day Operations, Real-time Operations	Medium	N/A	N/A	The responsible entity has either weather forecasts or past load patterns, available to predict the system's near-term load pattern, but not both.	The responsible entity failed to have both weather forecasts and past load patterns, available to predict the system's near-term load pattern.

R5	Real-time Operations	Medium	N/A	N/A	The responsible entity used monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions, but does not have indication of the need for corrective action.	The responsible entity failed to use monitoring equipment to bring to the attention of operating personnel important deviations in operating conditions.
R6	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to use sufficient metering of suitable range, accuracy and sampling rate (if applicable) to ensure accurate and timely monitoring of operating conditions under both normal and emergency situations.
R7	Real-time Operations	High	N/A	N/A	N/A	The responsible entity failed to monitor system frequency.

E. Regional Variances

None ~~identified~~.

F. Associated Documents

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed "Proposed" from Effective Date	Errata
1	November 1, 2006	Adopted by Board of Trustees	Revised
2		Modified R4 Modified M4 Modified Data Retention for M4 Replaced Levels of Non-compliance with the Feb 28, BOT approved Violation Severity Levels (VSLs)	Revised
2	October 17, 2008	Adopted by NERC Board of Trustees	
2	March ~~17~~23, 2011	Order issued by FERC approving TOP-006-2 (approval effective 5/23/11)	
3	TBD	Rapid revision to accommodate interpretation request for Requirements R1.2 & R3	Changes to bring document format to new guidelines. Changes to Requirements R1.2 & R3. Added Time Horizons.

Project 2010-INT-01 - TOP-006-2 for FMPP
Implementation Plan

Requested Approvals

- TOP-006-3 – Monitoring System Conditions

Requested Retirements

- TOP-006-2 – Monitoring System Conditions

Prerequisite Approvals

- None

Revisions to Defined Terms in the NERC Glossary

- None

Background

The Standards Committee approved a rapid development process for changes to TOP-006-2 in order to respond to an interpretation request involving Requirements R1.2 and R3. The project was assigned to the Standards Drafting Team for Project 2007-03 Real-time Operations.

General Considerations

Requirement R1.2 was revised to show that Transmission Operators will be responsible for transmission information. Requirement R1.3 was created to clarify that the Balancing Authorities provide generation information to its Reliability Coordinator and Transmission Operator but not to other Balancing Authorities. (This eliminates the need for CAN-0028.) These changes are consistent with the roles and responsibilities for these entities in Functional Model v5. The Measures, Data Retention, and VSLs have been adjusted accordingly.
Requirement R3 was clarified to show that entities will only be responsible for providing relay information for equipment that they are responsible for. (This eliminates the need for CAN-0026.)
Time Horizons have been added for all requirements.
Formatting has been brought up to the latest guidelines.

Applicable Entities

- Transmission Operators
- Balancing Authorities
- Generator Operators
- Reliability Coordinators

Effective Dates

In those jurisdictions where regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after applicable regulatory approval. In those jurisdictions where no regulatory approval is required, this standard shall become effective on the first day of the first calendar quarter after Board of Trustees adoption, or as otherwise made effective pursuant to the laws applicable to such ERO governmental authorities.

Already Approved Standard	Proposed Replacement Requirement(s)
TOP-006-2 **R1.2** Each Transmission Operator and Balancing Authority shall inform the Reliability Coordinator and other affected Balancing Authorities and Transmission Operators of all generation and transmission resources available for use.	TOP-006-3 R1.2 Each Transmission Operator shall inform the Reliability Coordinator and other affected Transmission Operators of all transmission resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*] R1.3 Each Balancing Authority shall inform its Reliability Coordinator and its Transmission Operators of all generation resources available for use. [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]
Notes: The RTOSDT recommends replacing R1.2 with a revised R1.2 and a new R1.3 as shown. This will allow for the proper allocation of responsibility for the information cited as per Functional Model v5.	

Already Approved Standard	Proposed Replacement Requirement(s)
TOP-006-2 **R3** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide appropriate technical information concerning protective relays to their operating personnel.	TOP-006-3 **R3** Each Reliability Coordinator, Transmission Operator, and Balancing Authority shall provide its operating personnel with appropriate technical information concerning protective relays for which the entity has responsibility. [*Violation Risk Factor: Medium*] [*Time Horizon: Operations Planning*]
Notes: The RTOSDT recommends the insertion of the phrase 'for which the entity has responsibility' which will make it clear that an entity can only supply information for equipment that they have responsibility for and not for equipment that is another entity's responsibility.	

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Standards Authorization Request Form

When completed, email this form to:
Andy.Rodriquez@nerc.net
For questions about this form or for assistance in completing the form, call Andy Rodriquez at 404-446-2579.

NERC welcomes suggestions to improve the reliability of the bulk power system through improved reliability standards. Please use this form to submit your request to propose a new or a revision to a NERC's Reliability Standard.

Request to propose a new or a revision to a Reliability Standard			
Title of Proposed Standard:	TOP-006-3 – Monitoring System Conditions		
Date Submitted:	February 3, 2012		
SAR Requester Information			
Name:	James Case, Chair of Project 2007-03 Real-time Operations		
Organization:	Entergy		
Telephone:	(601) 985-2345	E-mail:	jcase@entergy.com
SAR Type (Check as many as applicable)			
☐ New Standard		☐ Withdrawal of existing Standard	
X Revision to existing Standard		☐ Urgent Action	

SAR Information
Industry Need (What is the industry problem this request is trying to solve?):
There is a need for additional clarity surrounding Requirements R1.2 and R3 in TOP-006-2 as pointed out in an interpretation request from the Florida Municipal Power Pool.
Purpose or Goal (How does this request propose to address the problem described above?):
This SAR proposes to modify TOP-006-2, Requirements R1.2 and R3 to provide the needed clarity in the subject requirements.

SAR Information
Identify the Objectives of the proposed standard's requirements (What specific reliability deliverables are required to achieve the goal?):
Address the need for additional clarity in the subject requirements as per the interpretation request.
Brief Description (Provide a paragraph that describes the scope of this standard action.)
Changes will be made to Requirements R1.2 and R3 to bring needed clarity to the standard.
Detailed Description (Provide a description of the proposed project with sufficient details for the standard drafting team to execute the SAR. Also provide a justification for the development or revision of the standard, including an assessment of the reliability and market interface impacts of implementing or not implementing the standard action.)
Requirement R1.2 will be revised to apply solely to the Transmission Operator (as per the Functional Model v5) for dealing with transmission information. Requirement R1.3 will be created to apply solely to the Balancing Authority (as per the Functional Model v5) for delaing with generation information. Requirement R3 will be revised to state that information can only be provided by a functional entity that it has responsibility for. The SDT will also make conforming changes to the standard to add missing Time Horizons and to bring the compliance elements into conformance with the latest standard template.

Reliability Functions		
The Standard will Apply to the Following Functions (Check each one that applies.)		
☐	Regional Reliability Organization	Conducts the regional activities related to planning and operations, and coordinates activities of Responsible Entities to secure the reliability of the Bulk Electric System within the region and adjacent regions.
X	Reliability Coordinator	Responsible for the real-time operating reliability of its Reliability Coordinator Area in coordination with its neighboring Reliability Coordinator's wide area view.
X	Balancing Authority	Integrates resource plans ahead of time, and maintains load-interchange-resource balance within a Balancing Authority Area and

Reliability Functions		
		supports Interconnection frequency in real time.
☐	Interchange Authority	Ensures communication of interchange transactions for reliability evaluation purposes and coordinates implementation of valid and balanced interchange schedules between Balancing Authority Areas.
☐	Planning Coordinator	Assesses the longer-term reliability of its Planning Coordinator Area.
☐	Resource Planner	Develops a >one year plan for the resource adequacy of its specific loads within a Planning Coordinator area.
☐	Transmission Planner	Develops a >one year plan for the reliability of the interconnected Bulk Electric System within its portion of the Planning Coordinator area.
☐	Transmission Service Provider	Administers the transmission tariff and provides transmission services under applicable transmission service agreements (e.g., the pro forma tariff).
☐	Transmission Owner	Owns and maintains transmission facilities.
X	Transmission Operator	Ensures the real-time operating reliability of the transmission assets within a Transmission Operator Area.
☐	Distribution Provider	Delivers electrical energy to the End-use customer.
☐	Generator Owner	Owns and maintains generation facilities.
X	Generator Operator	Operates generation unit(s) to provide real and reactive power.
☐	Purchasing-Selling Entity	Purchases or sells energy, capacity, and necessary reliability-related services as required.
☐	Market Operator	Interface point for reliability functions with commercial functions.
☐	Load-Serving Entity	Secures energy and transmission service (and reliability-related services) to serve the End-use Customer.

Reliability and Market Interface Principles	
Applicable Reliability Principles (Check all that apply).	
X	1. Interconnected bulk power systems shall be planned and operated in a coordinated manner

Reliability and Market Interface Principles	
	to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
X	2. The frequency and voltage of interconnected bulk power systems shall be controlled within defined limits through the balancing of real and reactive power supply and demand.
X	3. Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.
☐	4. Plans for emergency operation and system restoration of interconnected bulk power systems shall be developed, coordinated, maintained and implemented.
☐	5. Facilities for communication, monitoring and control shall be provided, used and maintained for the reliability of interconnected bulk power systems.
X	6. Personnel responsible for planning and operating interconnected bulk power systems shall be trained, qualified, and have the responsibility and authority to implement actions.
X	7. The security of the interconnected bulk power systems shall be assessed, monitored and maintained on a wide area basis.
☐	8. Bulk power systems shall be protected from malicious physical or cyber attacks.

Does the proposed Standard comply with all of the following Market Interface Principles?	Enter (yes/no)
1. A reliability standard shall not give any market participant an unfair competitive advantage.	Y
2. A reliability standard shall neither mandate nor prohibit any specific market structure.	Y
3. A reliability standard shall not preclude market solutions to achieving compliance with that standard.	Y
4. A reliability standard shall not require the public disclosure of commercially sensitive information. All market participants shall have equal opportunity to access commercially non-sensitive information that is required for compliance with reliability standards.	Y

Related Standards	
Standard No.	Explanation
	N/A

Related Standards	

Related SARs	
SAR ID	Explanation
	N/A

Regional Variances	
Region	Explanation
ERCOT	
FRCC	
MRO	
NPCC	
RFC	
SERC	
SPP	
WECC	

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Violation Risk Factor and Violation Severity Level Assignments

Project 2010-INT-01 TOP-006-2 for FMPP

Violation Risk Factor and Violation Severity Level Assignments

This document provides the drafting team's justification for assignment of violation risk factors (VRFs) and violation severity levels (VSLs) for new Requirement R1.3 in TOP-006-3 – Monitoring System Conditions. None of the other existing, approved values are being changed.

The new requirement is assigned a VRF and a set of one or more VSLs. These elements support the determination of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the ERO Sanction Guidelines.

Justification for Assignment of Violation Risk Factors in TOP-006-3, Requirement R1.3:

The SDT applied the following NERC criteria when proposing VRFs for the requirements in TOP-006-3, Requirement R1.3:

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, 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. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system; or, a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to 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 planning requirement that is administrative in nature.

The SDT also considered consistency with the FERC Violation Risk Factor Guidelines for setting VRFs:[1]

Guideline (1) — Consistency with the Conclusions of the Final Blackout Report

The Commission seeks to ensure that Violation Risk Factors assigned to Requirements of Reliability Standards in these identified areas appropriately reflect their historical critical impact on the reliability of the Bulk-Power System.

In the VSL Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System:[2]

- Emergency operations
- Vegetation management
- Operator personnel training
- Protection systems and their coordination
- Operating tools and backup facilities
- Reactive power and voltage control
- System modeling and data exchange
- Communication protocol and facilities
- Requirements to determine equipment ratings
- Synchronized data recorders
- Clearer criteria for operationally critical facilities
- Appropriate use of transmission loading relief

Guideline (2) — Consistency within a Reliability Standard

The Commission expects a rational connection between the sub-Requirement Violation Risk Factor assignments and the main Requirement Violation Risk Factor assignment.

[1] North American Electric Reliability Corp., 119 FERC ¶ 61,145, order on reh'g and compliance filing, 120 FERC ¶ 61,145 (2007) ("VRF Rehearing Order").
[2] Id. at footnote 15.

Guideline (3) — Consistency among Reliability Standards

The Commission expects the assignment of Violation Risk Factors corresponding to Requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

Guideline (4) — Consistency with NERC's Definition of the Violation Risk Factor Level

Guideline (4) was developed to evaluate whether the assignment of a particular Violation Risk Factor level conforms to NERC's definition of that risk level.

Guideline (5) — Treatment of Requirements that Co-mingle More Than One Obligation

Where a single Requirement co-mingles a higher risk reliability objective and a lesser risk reliability objective, the VRF assignment for such Requirements must not be watered down to reflect the lower risk level associated with the less important objective of the Reliability Standard.

The following discussion addresses how the SDT considered FERC's VRF Guidelines 2 through 5. The team did not address Guideline 1 directly because of an apparent conflict between Guidelines 1 and 4. Whereas Guideline 1 identifies a list of topics that encompass nearly all topics within NERC's Reliability Standards and implies that these requirements should be assigned a "High" VRF, Guideline 4 directs assignment of VRFs based on the impact of a specific requirement to the reliability of the system. The SDT believes that Guideline 4 is reflective of the intent of VRFs in the first instance and therefore concentrated its approach on the reliability impact of the requirements.

There are eleven requirements in TOP-001-2. None of the eleven requirements were assigned a "Lower" VRF. Requirements R1, R2, R4, R7, and R11 were assigned a "High" VRF while all of the other requirements were given a "Medium" VRF.

VRF for TOP-006-3, Requirement R1.3:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The sub-requirements all require similar performance and all have the same VRF of Medium. Therefore, there is consistency.
- FERC's Guideline 3 — Consistency among Reliability Standards. This new requirement is exactly analogous to the approved Requirement R1.2 that is assigned a Medium VRF. The only difference is that Requirement R1.2 applies to a Transmission Operator while the new Requirement R1.3 applies to the Balancing Authority.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to supply the cited information will not, by itself, lead to instability, separation, or cascading failures. Failure to provide this information could, however, 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. Thus, a Medium VRF is justified.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-006-3, Requirement R1.3 contains only one objective, therefore only one VRF was assigned.

Justification for Assignment of Violation Severity Levels for TOP-006-3, Requirement R1.3:
In developing the VSLs for Requirement R1.3 in TOP-006-3, the SDT anticipated the evidence that would be reviewed during an audit, and developed its VSLs based on the noncompliance an auditor may find during a typical audit. The SDT based its assignment of VSLs on the following NERC criteria:

Lower	Moderate	High	Severe
Missing a minor element (or a small percentage) of the required performance The performance or product measured has significant value as it almost meets the full intent of the requirement.	Missing at least one significant element (or a moderate percentage) of the required performance. The performance or product measured still has significant value in meeting the intent of the requirement.	Missing more than one significant element (or is missing a high percentage) of the required performance or is missing a single vital component. The performance or product has limited value in meeting the intent of the requirement.	Missing most or all of the significant elements (or a significant percentage) of the required performance. The performance measured does not meet the intent of the requirement or the product delivered cannot be used in meeting the intent of the requirement.

FERC's VSL guidelines are presented below, followed by an analysis of whether the VSLs proposed for Requirement R1.3 in TOP-006-3 meet the FERC Guidelines for assessing VSLs:

Guideline 1: Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance
Compare the VSLs to any prior levels of non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when levels of non-compliance were used.

Guideline 2: Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties
A violation of a "binary" type requirement must be a "Severe" VSL.
Do not use ambiguous terms such as "minor" and "significant" to describe noncompliant performance.

Guideline 3: Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement
VSLs should not expand on what is required in the requirement.

Guideline 4: Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations

. . . unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that assessing penalties on a per violation per day basis is the "default" for penalty calculations.

VSLs for TOP-006-3, Requirement R1.3:

R#	Compliance with NERC's VSL Guidelines	Guideline 1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	Guideline 2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	Guideline 3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	Guideline 4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations
R1.	Meets NERC's VSL guidelines – Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is exactly analogous to approved TOP-006-2, Requirement R1.2. That VSL is also based on a single violation and is binary. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.

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Standards Announcement

Project 2010-INT-01 Rapid Revision of TOP-006

Recirculation Ballot Open through 8 p.m. Friday, September 21, 2012

Now Available

The Real-time Operations Standard Drafting Team has posted its consideration of comments received during a parallel formal comment period and initial ballot that ended July 30, 2012. The drafting team has made the following clarifying changes:

- In Requirement R1, Part 1.3 Transmission Operator has been removed.
- In Requirement R3, the areas for the responsible entities have been spelled out for each.
- In Requirement R3, changed the Time Horizon to Real-time Operations from Operations Planning.
- In Requirement R4, removed Operations Planning, Same Day Operations from the Time Horizon.
- Respective changes were made to the measures and VSLs for each of the changes listed above.

A recirculation ballot for the rapid revision of TOP-006-3 is open from **Wednesday, September 12th through 8 p.m. Eastern on Friday, September 21, 2012.**

Instructions

In the recirculation ballot, votes are counted by exception. Only members of the ballot pool may cast a ballot; all ballot pool members may change their previously cast votes. A ballot pool member who failed to cast a ballot during the last ballot window may cast a ballot in the recirculation ballot window. If a ballot pool member does not participate in the recirculation ballot, that member's vote cast in the previous ballot will be carried over as that member's vote in the recirculation ballot.

Members of the ballot pool associated with this project may log in and submit their vote by clicking here.

Next Steps

If approved, the standard will be presented to the Board of Trustees for adoption and then filed with the appropriate regulatory authorities.

Background

Florida Municipal Power Pool (FMPP) submitted a request for interpretation of TOP-006-2 asking for clarification for Requirements R1.2 and Requirement R3. For Requirement R1.2, since the Balancing Authority is not responsible for transmission, FMPP asked if the Balancing Authority is responsible for

reporting generation resources available for use and the Transmission Operator responsible for reporting transmission resources that are available for use. For Requirement R3, FMPP asked if the "appropriate technical information concerning protective relays" only refers to protective relays for which the entity has responsibility.

At the January 2012 meeting, the Standards Committee approved addressing the interpretation through a revision of TOP-006 and appointed the Real-time Operations SDT as the drafting team. The Standards Committee action is entirely consistent with guidance on interpretations provided by the NERC Board of Trustees in November 2009, and consistent with the processes in the NERC Standard Processes Manual.

Standards Development Process

The Standards Processes Manual contains all the procedures governing the standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance, please contact Monica Benson, Standards Process Administrator, at monica.benson@nerc.net or at 404-446-2560.

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Standards Announcement

Project 2010-INT-01 Rapid Revision of TOP-006

Recirculation Ballot Results

Now Available

A recirculation ballot of **TOP-006-3 – Monitoring System Conditions** concluded on Friday, September 21, 2012.

Voting statistics for each ballot are listed below, and the Ballots Results page provides a link to the detailed results.

Approval
Quorum: 85.36%
Approval: 87.34%

Next Steps

The standard will be presented to the Board of Trustees in November 2012.

Background

Florida Municipal Power Pool (FMPP) submitted a request for interpretation of TOP-006-2 asking for clarification for Requirements R1.2 and Requirement R3. For Requirement R1.2, since the Balancing Authority is not responsible for transmission, FMPP asked if the Balancing Authority is responsible for reporting generation resources available for use and the Transmission Operator responsible for reporting transmission resources that are available for use. For Requirement R3, FMPP asked if the "appropriate technical information concerning protective relays" only refers to protective relays for which the entity has responsibility.

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North American Electric Reliability Corporation
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Ballot Results	
Ballot Name:	Project 2010-INT-01 Recirculation Ballot TOP-006-3 September 2012_in
Ballot Period:	9/12/2012 - 9/21/2012
Ballot Type:	Initial
Total # Votes:	309
Total Ballot Pool:	362
Quorum:	**85.36 % The Quorum has been reached**
Weighted Segment Vote:	87.34 %
Ballot Results:	**The Standard has Passed**

Summary of Ballot Results

Segment	Ballot Pool	Segment Weight	Affirmative # Votes	Affirmative Fraction	Negative # Votes	Negative Fraction	Abstain # Votes	No Vote
1 - Segment 1.	98	1	68	0.895	8	0.105	9	13
2 - Segment 2.	10	0.6	6	0.6	0	0	1	3
3 - Segment 3.	80	1	47	0.855	8	0.145	9	16
4 - Segment 4.	25	1	19	0.95	1	0.05	3	2
5 - Segment 5.	79	1	50	0.926	4	0.074	14	11
6 - Segment 6.	52	1	35	0.875	5	0.125	6	6
7 - Segment 7.	0	0	0	0	0	0	0	0
8 - Segment 8.	8	0.6	5	0.5	1	0.1	0	2
9 - Segment 9.	1	0.1	0	0	1	0.1	0	0
10 - Segment 10.	9	0.8	6	0.6	2	0.2	1	0
Totals	**362**	**7.1**	**236**	**6.201**	**30**	**0.899**	**43**	**53**

Individual Ballot Pool Results

Segment	Organization	Member	Ballot	Comments
1	Ameren Services	Kirit Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Affirmative	
1	American Transmission Company, LLC	Andrew Z Pusztai	Affirmative	
1	Arizona Public Service Co.	Robert Smith	Abstain	
1	Associated Electric Cooperative, Inc.	John Bussman	Affirmative	
1	ATCO Electric	Glen Sutton	Affirmative	
1	Austin Energy	James Armke	Affirmative	

1	Avista Corp.	Scott J Kinney	Affirmative	
1	Balancing Authority of Northern California	Kevin Smith	Affirmative	
1	BC Hydro and Power Authority	Patricia Robertson	Abstain	
1	Beaches Energy Services	Joseph S Stonecipher	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	
1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Affirmative	
1	Bryan Texas Utilities	John C Fontenot	Affirmative	
1	CenterPoint Energy Houston Electric, LLC	John Brockhan	Affirmative	
1	Central Maine Power Company	Joseph Turano Jr.	Affirmative	
1	City of Tacoma, Department of Public Utilities, Light Division, dba Tacoma Power	Chang G Choi	Affirmative	
1	Clark Public Utilities	Jack Stamper	Affirmative	
1	Cleco Power LLC	Danny McDaniel	Affirmative	
1	Colorado Springs Utilities	Paul Morland	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Affirmative	
1	CPS Energy	Richard Castrejana	Affirmative	
1	Dairyland Power Coop.	Robert W. Roddy	Affirmative	
1	Dayton Power & Light Co.	Hertzel Shamash	Affirmative	
1	Deseret Power	James Tucker		
1	Dominion Virginia Power	Michael S Crowley	Affirmative	
1	Duke Energy Carolina	Douglas E. Hils	Negative	
1	El Paso Electric Company	Dennis Malone	Affirmative	
1	Empire District Electric Co.	Ralph F Meyer	Affirmative	
1	Entergy Services, Inc.	Edward J Davis	Negative	
1	FirstEnergy Corp.	William J Smith	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Affirmative	
1	Florida Power & Light Co.	Mike O'Neil	Affirmative	
1	Gainesville Regional Utilities	Richard Bachmeier	Affirmative	
1	Great River Energy	Gordon Pietsch	Affirmative	
1	Hoosier Energy Rural Electric Cooperative, Inc.	Bob Solomon	Affirmative	
1	Hydro One Networks, Inc.	Ajay Garg	Negative	
1	Imperial Irrigation District	Tino Zaragoza		
1	International Transmission Company Holdings Corp	Michael Moltane	Negative	
1	JEA	Ted Hobson		
1	KAMO Electric Cooperative	Walter Kenyon		
1	Kansas City Power & Light Co.	Michael Gammon	Negative	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	John W Delucca	Affirmative	
1	LG&E Energy Transmission Services	Bradley C. Young		
1	Lincoln Electric System	Doug Bantam	Affirmative	
1	Long Island Power Authority	Robert Ganley	Affirmative	
1	Lower Colorado River Authority	Martyn Turner		
1	Manitoba Hydro	Joe D Petaski		
1	MEAG Power	Danny Dees	Affirmative	
1	MidAmerican Energy Co.	Terry Harbour	Affirmative	
1	National Grid USA	Michael Jones	Affirmative	
1	Nebraska Public Power District	Cole C Brodine	Affirmative	
1	New York Power Authority	Bruce Metruck	Affirmative	
1	New York State Electric & Gas Corp.	Raymond P Kinney		
1	Northeast Utilities	David Boguslawski	Negative	
1	NorthWestern Energy	John Canavan		
1	NStar Gas and Electric	John Robertson	Negative	
1	Ohio Valley Electric Corp.	Robert Mattey	Affirmative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	Doug Peterchuck	Affirmative	
1	Oncor Electric Delivery	Jen Fiegel	Affirmative	
1	Orlando Utilities Commission	Brad Chase		
1	Pacific Gas and Electric Company	Bangalore Vijayraghavan		
1	PacifiCorp	Ryan Millard		
1	PECO Energy	Ronald Schloendorn	Abstain	
1	Platte River Power Authority	John C. Collins	Affirmative	
1	Portland General Electric Co.	John T Walker	Affirmative	
1	Potomac Electric Power Co.	David Thorne	Affirmative	
1	PowerSouth Energy Cooperative	Larry D Avery	Affirmative	
1	PPL Electric Utilities Corp.	Brenda L Truhe	Affirmative	
1	Progress Energy Carolinas	Brett A. Koelsch	Abstain	

1	Public Service Company of New Mexico	Laurie Williams	Affirmative	
1	Public Service Electric and Gas Co.	Kenneth D. Brown	Affirmative	
1	Public Utility District No. 1 of Okanogan County	Dale Dunckel	Abstain	
1	Public Utility District No. 2 of Grant County, Washington	Rod Noteboom	Abstain	
1	Puget Sound Energy, Inc.	Denise M Lietz	Affirmative	
1	Rochester Gas and Electric Corp.	John C. Allen	Abstain	
1	Sacramento Municipal Utility District	Tim Kelley	Affirmative	
1	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L Blackwell	Negative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Snohomish County PUD No. 1	Long T Duong	Abstain	
1	South Carolina Electric & Gas Co.	Tom Hanzlik	Affirmative	
1	Southern California Edison Company	Steven Mavis	Affirmative	
1	Southern Company Services, Inc.	Robert A. Schaffeld	Affirmative	
1	Southwest Transmission Cooperative, Inc.	John Shaver	Affirmative	
1	Sunflower Electric Power Corporation	Noman Lee Williams	Affirmative	
1	Tennessee Valley Authority	Howell D Scott	Affirmative	
1	Trans Bay Cable LLC	Steven Powell	Affirmative	
1	Tri-State G & T Association, Inc.	Tracy Sliman	Affirmative	
1	Tucson Electric Power Co.	John Tolo		
1	Turlock Irrigation District	Esteban Martinez	Affirmative	
1	United Illuminating Co.	Jonathan Appelbaum	Affirmative	
1	Westar Energy	Allen Klassen	Affirmative	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Western Farmers Electric Coop.	Forrest Brock	Affirmative	
1	Xcel Energy, Inc.	Gregory L Pieper	Abstain	
2	Alberta Electric System Operator	Ken A Gardner		
2	BC Hydro	Venkataramakrishnan Vinnakota	Abstain	
2	Electric Reliability Council of Texas, Inc.	Cheryl Moseley	Affirmative	
2	Independent Electricity System Operator	Barbara Constantinescu	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
2	Midwest ISO, Inc.	Marie Knox		
2	New Brunswick System Operator	Alden Briggs	Affirmative	
2	New York Independent System Operator	Gregory Campoli		
2	PJM Interconnection, L.L.C.	stephanie monzon	Affirmative	
2	Southwest Power Pool, Inc.	Charles H. Yeung	Affirmative	
3	AEP	Michael E Deloach		
3	Alabama Power Company	Richard J. Mandes	Affirmative	
3	Ameren Services	Mark Peters	Affirmative	
3	APS	Steven Norris	Abstain	
3	Atlantic City Electric Company	NICOLE BUCKMAN	Affirmative	
3	Avista Corp.	Robert Lafferty		
3	BC Hydro and Power Authority	Pat G. Harrington	Abstain	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	
3	Central Electric Power Cooperative	Adam M Weber		
3	City of Austin dba Austin Energy	Andrew Gallo	Affirmative	
3	City of Bartow, Florida	Matt Culverhouse		
3	City of Farmington	Linda R Jacobson	Affirmative	
3	City of Garland	Ronnie C Hoeinghaus	Affirmative	
3	City of Green Cove Springs	Gregg R Griffin	Abstain	
3	City of Redding	Bill Hughes	Affirmative	
3	Cleco Corporation	Michelle A Corley	Affirmative	
3	Colorado Springs Utilities	Charles Morgan	Affirmative	
3	Consolidated Edison Co. of New York	Peter T Yost	Affirmative	
3	Consumers Energy	Richard Blumenstock	Affirmative	
3	CPS Energy	Jose Escamilla	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Detroit Edison Company	Kent Kujala	Affirmative	
3	Dominion Resources, Inc.	Connie B Lowe	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Negative	
3	El Paso Electric Company	Tracy Van Slyke	Affirmative	
3	Entergy	Joel T Plessinger	Negative	
3	FirstEnergy Energy Delivery	Stephan Kern	Affirmative	
3	Florida Municipal Power Agency	Joe McKinney	Affirmative	
3	Florida Power Corporation	Lee Schuster	Negative	

3	Georgia Power Company	Danny Lindsey	Affirmative	
3	Georgia System Operations Corporation	Scott McGough	Negative	
3	Great River Energy	Brian Glover	Affirmative	
3	Gulf Power Company	Paul C Caldwell	Affirmative	
3	Hydro One Networks, Inc.	David Kiguel	Negative	
3	Imperial Irrigation District	Jesus S. Alcaraz		
3	JEA	Garry Baker	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke		
3	Kissimmee Utility Authority	Gregory D Woessner	Negative	
3	Lakeland Electric	Mace D Hunter	Affirmative	
3	Lincoln Electric System	Jason Fortik		
3	Los Angeles Department of Water & Power	Daniel D Kurowski		
3	Louisville Gas and Electric Co.	Charles A. Freibert	Abstain	
3	Manitoba Hydro	Greg C. Parent		
3	MidAmerican Energy Co.	Thomas C. Mielnik		
3	Mississippi Power	Jeff Franklin	Affirmative	
3	Modesto Irrigation District	Jack W Savage	Affirmative	
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Affirmative	
3	Muscatine Power & Water	John S Bos	Affirmative	
3	Nebraska Public Power District	Tony Eddleman	Affirmative	
3	New York Power Authority	David R Rivera	Affirmative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Negative	
3	Northern Indiana Public Service Co.	William SeDoris	Affirmative	
3	Omaha Public Power District	Blaine R. Dinwiddie		
3	Orange and Rockland Utilities, Inc.	David Burke	Affirmative	
3	Orlando Utilities Commission	Ballard K Mutters	Affirmative	
3	Owensboro Municipal Utilities	Thomas T Lyons	Affirmative	
3	Pacific Gas and Electric Company	John H Hagen		
3	PacifiCorp	Dan Zollner	Abstain	
3	Pepco Holdings, Inc.	Mark R Jones	Affirmative	
3	Platte River Power Authority	Terry L Baker	Affirmative	
3	PNM Resources	Michael Mertz	Abstain	
3	Portland General Electric Co.	Thomas G Ward	Abstain	
3	Progress Energy Carolinas	Sam Waters		
3	Public Service Electric and Gas Co.	Jeffrey Mueller	Affirmative	
3	Puget Sound Energy, Inc.	Erin Apperson	Affirmative	
3	Sacramento Municipal Utility District	James Leigh-Kendall	Affirmative	
3	Salt River Project	John T. Underhill		
3	Santee Cooper	James M Poston	Negative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	Seminole Electric Cooperative, Inc.	James R Frauen	Affirmative	
3	Snohomish County PUD No. 1	Mark Oens	Abstain	
3	South Carolina Electric & Gas Co.	Hubert C Young	Affirmative	
3	Southern California Edison Company	David B Coher	Affirmative	
3	Tacoma Public Utilities	Travis Metcalfe	Affirmative	
3	Tampa Electric Co.	Ronald L. Donahey		
3	Tennessee Valley Authority	Ian S Grant	Affirmative	
3	Tri-State G & T Association, Inc.	Janelle Marriott		
3	Westar Energy	Bo Jones	Affirmative	
3	Wisconsin Electric Power Marketing	James R Keller	Affirmative	
3	Xcel Energy, Inc.	Michael Ibold	Abstain	
4	American Municipal Power	Kevin Koloini	Abstain	
4	Blue Ridge Power Agency	Duane S Dahlquist	Affirmative	
4	City of Austin dba Austin Energy	Reza Ebrahimian	Affirmative	
4	City of New Smyrna Beach Utilities Commission	Tim Beyrle	Affirmative	
4	City of Redding	Nicholas Zettel	Affirmative	
4	City Utilities of Springfield, Missouri	John Allen	Affirmative	
4	Consumers Energy	David Frank Ronk	Affirmative	
4	Detroit Edison Company	Daniel Herring		
4	Flathead Electric Cooperative	Russ Schneider	Affirmative	
4	Florida Municipal Power Agency	Frank Gaffney	Affirmative	
4	Fort Pierce Utilities Authority	Cairo Vanegas	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Negative	
4	Imperial Irrigation District	Diana U Torres		
4	LaGen	Richard Comeaux	Abstain	
4	Madison Gas and Electric Co.	Joseph DePoorter	Affirmative	

4	Modesto Irrigation District	Spencer Tacke	Affirmative	
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Old Dominion Electric Coop.	Mark Ringhausen	Affirmative	
4	Public Utility District No. 1 of Snohomish County	John D Martinsen	Abstain	
4	Sacramento Municipal Utility District	Mike Ramirez	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R Wallace	Affirmative	
4	Tacoma Public Utilities	Keith Morisette	Affirmative	
4	Turlock Irrigation District	Steven C Hill	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Affirmative	
5	AEP Service Corp.	Brock Ondayko	Affirmative	
5	Amerenue	Sam Dwyer	Affirmative	
5	Arizona Public Service Co.	Edward Cambridge	Abstain	
5	Associated Electric Cooperative, Inc.	Matthew Pacobit		
5	Avista Corp.	Edward F. Groce	Affirmative	
5	BC Hydro and Power Authority	Clement Ma	Abstain	
5	Boise-Kuna Irrigation District/dba Lucky peak power plant project	Mike D Kukla		
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	
5	Brazos Electric Power Cooperative, Inc.	Shari Heino	Affirmative	
5	City and County of San Francisco	Daniel Mason		
5	City of Austin dba Austin Energy	Jeanie Doty	Affirmative	
5	City of Redding	Paul A. Cummings	Affirmative	
5	City of Tallahassee	Karen Webb	Affirmative	
5	Cleco Power	Stephanie Huffman	Affirmative	
5	Cogentrix Energy, Inc.	Mike D Hirst	Abstain	
5	Colorado Springs Utilities	Jennifer Eckels	Affirmative	
5	Consolidated Edison Co. of New York	Wilket (Jack) Ng	Affirmative	
5	Consumers Energy Company	David C Greyerbiehl	Affirmative	
5	Deseret Power	Philip B Tice Jr	Affirmative	
5	Detroit Edison Company	Christy Wicke	Affirmative	
5	Dominion Resources, Inc.	Mike Garton	Affirmative	
5	Duke Energy	Dale Q Goodwine	Negative	
5	Edison Mission Marketing & Trading Inc.	Brenda J Frazer	Affirmative	
5	El Paso Electric Company	David Hawkins	Affirmative	
5	Electric Power Supply Association	John R Cashin	Abstain	
5	Energy Services, Inc.	Tracey Stubbs	Negative	
5	Essential Power, LLC	Patrick Brown	Affirmative	
5	Exelon Nuclear	Michael Korchynsky		
5	FirstEnergy Solutions	Kenneth Dresner	Affirmative	
5	Florida Municipal Power Agency	David Schumann	Affirmative	
5	Great River Energy	Preston L Walsh	Affirmative	
5	Hydro-Québec Production	Roger Dufresne	Abstain	
5	JEA	John J Babik	Affirmative	
5	Kansas City Power & Light Co.	Brett Holland	Negative	
5	Kissimmee Utility Authority	Mike Blough	Affirmative	
5	Lakeland Electric	James M Howard	Affirmative	
5	Liberty Electric Power LLC	Daniel Duff	Abstain	
5	Lincoln Electric System	Dennis Florom	Affirmative	
5	Los Angeles Department of Water & Power	Kenneth Silver	Abstain	
5	Manitoba Hydro	S N Fernando		
5	Massachusetts Municipal Wholesale Electric Company	David Gordon	Abstain	
5	MEAG Power	Steven Grego	Affirmative	
5	MidAmerican Energy Co.	Christopher Schneider		
5	Muscatine Power & Water	Mike Avesing	Affirmative	
5	Nebraska Public Power District	Don Schmit	Affirmative	
5	New York Power Authority	Wayne Sipperly	Affirmative	
5	NextEra Energy	Allen D Schriver	Affirmative	
5	North Carolina Electric Membership Corp.	Jeffrey S Brame	Affirmative	
5	Omaha Public Power District	Mahmood Z. Safi	Affirmative	
5	Pacific Gas and Electric Company	Richard J. Padilla		
5	PacifiCorp	Sandra L. Shaffer	Abstain	
5	Platte River Power Authority	Roland Thiel	Affirmative	
5	Portland General Electric Co.	Matt E. Jastram	Affirmative	
5	PPL Generation LLC	Annette M Bannon	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis		

5	Proven Compliance Solutions	Mitchell E Needham		
5	PSEG Fossil LLC	Tim Kucey	Affirmative	
5	Public Utility District No. 1 of Lewis County	Steven Grega	Abstain	
5	Public Utility District No. 2 of Grant County, Washington	Michiko Sell	Abstain	
5	Puget Sound Energy, Inc.	Tom Flynn	Affirmative	
5	Sacramento Municipal Utility District	Bethany Hunter	Affirmative	
5	Salt River Project	William Alkema	Affirmative	
5	Santee Cooper	Lewis P Pierce	Negative	
5	Seattle City Light	Michael J. Haynes		
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins	Affirmative	
5	Snohomish County PUD No. 1	Sam Nietfeld	Abstain	
5	South Carolina Electric & Gas Co.	Edward Magic	Affirmative	
5	Southern California Edison Company	Denise Yaffe	Affirmative	
5	Southern Company Generation	William D Shultz	Affirmative	
5	Tacoma Power	Chris Mattson	Affirmative	
5	Tampa Electric Co.	RJames Rocha	Affirmative	
5	Tennessee Valley Authority	David Thompson	Affirmative	
5	TransAlta Corporation	Rebbekka McFadden		
5	Tri-State G & T Association, Inc.	Mark Stein	Affirmative	
5	U.S. Army Corps of Engineers	Melissa Kurtz	Affirmative	
5	U.S. Bureau of Reclamation	Martin Bauer	Abstain	
5	Westar Energy	Bryan Taggart	Affirmative	
5	Wisconsin Electric Power Co.	Linda Horn	Affirmative	
5	Xcel Energy, Inc.	Liam Noailles	Abstain	
6	AEP Marketing	Edward P. Cox	Affirmative	
6	Ameren Energy Marketing Co.	Jennifer Richardson	Affirmative	
6	APS	Randy A. Young	Abstain	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	
6	City of Austin dba Austin Energy	Lisa L Martin	Affirmative	
6	City of Redding	Marvin Briggs	Affirmative	
6	Cleco Power LLC	Robert Hirchak	Affirmative	
6	Colorado Springs Utilities	Lisa C Rosintoski	Affirmative	
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Affirmative	
6	Constellation Energy Commodities Group	Donald Schopp	Abstain	
6	Dominion Resources, Inc.	Louis S. Slade	Affirmative	
6	Duke Energy	Greg Cecil	Negative	
6	El Paso Electric Company	Tony Soto		
6	Entergy Services, Inc.	Terri F Benoit	Negative	
6	FirstEnergy Solutions	Kevin Querry	Affirmative	
6	Florida Municipal Power Agency	Richard L. Montgomery	Affirmative	
6	Florida Municipal Power Pool	Thomas Washburn	Affirmative	
6	Florida Power & Light Co.	Silvia P. Mitchell	Affirmative	
6	Great River Energy	Donna Stephenson	Affirmative	
6	Imperial Irrigation District	Cathy Bretz	Abstain	
6	Kansas City Power & Light Co.	Jessica L Klinghoffer	Negative	
6	Lakeland Electric	Paul Shipps	Affirmative	
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Los Angeles Department of Water & Power	Brad Packer	Abstain	
6	Manitoba Hydro	Daniel Prowse		
6	MidAmerican Energy Co.	Dennis Kimm		
6	Modesto Irrigation District	James McFall	Affirmative	
6	Muscatine Power & Water	John Stolley	Affirmative	
6	New York Power Authority	Saul Rojas	Affirmative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Affirmative	
6	Omaha Public Power District	David Ried	Affirmative	
6	PacifiCorp	Scott L Smith	Abstain	
6	Platte River Power Authority	Carol Ballantine	Affirmative	
6	Portland General Electric Co.	John Jamieson	Affirmative	
6	PPL EnergyPlus LLC	Elizabeth Davis	Affirmative	
6	Progress Energy	John T Sturgeon	Negative	
6	PSEG Energy Resources & Trade LLC	Peter Dolan	Affirmative	
6	Public Utility District No. 2 of Grant County, Washington	CASEY SPROUSE		
6	Sacramento Municipal Utility District	Diane Enderby	Affirmative	
6	Salt River Project	Steven J Hulet	Affirmative	
6	Santee Cooper	Michael Brown	Negative	

6	Seattle City Light	Dennis Sismaet	Affirmative	
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak	Affirmative	
6	Snohomish County PUD No. 1	William T Moojen	Abstain	
6	Southern California Edison Company	Lujuanna Medina	Affirmative	
6	Southern Company Generation and Energy Marketing	John J. Ciza	Affirmative	
6	Tacoma Public Utilities	Michael C Hill	Affirmative	
6	Tampa Electric Co.	Benjamin F Smith II		
6	Tennessee Valley Authority	Marjorie S. Parsons	Affirmative	
6	Westar Energy	Grant L Wilkerson	Affirmative	
6	Western Area Power Administration - UGP Marketing	Peter H Kinney	Affirmative	
6	Xcel Energy, Inc.	David F Lemmons		
8		Roger C Zaklukiewicz	Negative	
8		James A Maenner	Affirmative	
8		Edward C Stein		
8	JDRJC Associates	Jim Cyrulewski	Affirmative	
8	Massachusetts Attorney General	Frederick R Plett	Affirmative	
8	Utility Services, Inc.	Brian Evans-Mongeon		
8	Utility System Effeciencies, Inc. (USE)	Robert L Dintelman	Affirmative	
8	Volkmann Consulting, Inc.	Terry Volkmann	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald Nelson	Negative	
10	Florida Reliability Coordinating Council	Linda Campbell	Abstain	
10	Midwest Reliability Organization	William S Smith	Affirmative	
10	New York State Reliability Council	Alan Adamson	Affirmative	
10	Northeast Power Coordinating Council	Guy V. Zito	Negative	
10	ReliabilityFirst Corporation	Anthony E Jablonski	Affirmative	
10	SERC Reliability Corporation	Carter B. Edge	Affirmative	
10	Southwest Power Pool RE	Emily Pennel	Affirmative	
10	Texas Reliability Entity, Inc.	Donald G Jones	Negative	
10	Western Electricity Coordinating Council	Steven L. Rueckert	Affirmative	

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Account Log-In/Register

EXHIBIT F

Project 2010-INT-01
Rapid Revision of TOP-006-2 for FMPP
Drafting Team Roster

Name and Title	Company and Address	Contact Info	Bio
James Case, P.E. Director, Weekly Operations & SDT Chair	Entergy Services 6540 Watkins Drive Jackson, MS 39213	1.601.985.2345 jcase@entergy.com	Jim Case was named director of weekly operations in June. 2008. Immediately prior to being named to this position, Mr. Case served in transmission operations as manager of transmission system security. As director of weekly operations, Mr. Case is responsible for the design, implementation and maintenance of procedures and processes necessary to ensure compliance with Entergy's transmission tariff on file with the Federal Energy Regulatory Commission that governs Entergy's weekly procurement process. Mr. Case also leads the implementation of integration into the MISO RTO for Entergy's transmission function. Mr. Case has over thirty-eight years of electric utility experience, most recently in transmission operations. He has experience in all phases of transmission and distribution, including field engineering, construction management, distribution standards, and bulk power operations. Mr. Case currently directs a group that performs security-constrained unit commitment including independent offers on a week-ahead basis for Entergy. In addition to his previous assignment in transmission operations, he has served as manager of transmission security coordination, staff engineer in distribution standards, and district engineer in the south-central district of Entergy Mississippi. Before joining Entergy, Mr. Case worked for the Union Carbide Nuclear Division and Gulf Power Company. Mr. Case is active nationally in NERC. He is a member of the NERC Operating Committee, Chair of the SERC Operating Committee, Chair of the NERC Real-time Operations Standards Drafting Team, member of the Reliability Coordination Standards Drafting Team, member of the

			Interconnected Reliable Operations Standards Drafting Team, past member of the Version 0 Standards Drafting Team, the Reliability Coordination Working Group, the Congestion Management Working Group, and the ANSI C62 working group concerned with surge arrester standards. Mr. Case has a bachelor's degree in electrical engineering from Mississippi State University and a master's degree in business administration from the University of Arkansas at Little Rock. Mr. Case is a senior member of the Institute of Electrical and Electronics Engineers, Inc., a member of the Power Engineering Society, and is a registered professional engineer in Mississippi. Mr. Case is a member of Eta Kappa Nu, Tau Beta Pi, Beta Gamma Sigma and Alpha Epsilon Lambda.
Karl Tammar Transmission Operations Manager & SDT Vice Chair	Sharyland Utilities 6900 Interstate 40 West, Suite 100 Amarillo, TX 79119	1.806.358.9070 ktammar@sharyland.com	Karl Tammar is the Manager of Transmission Operations for Sharyland Utilities, LLP. Mr. Tammar joined Sharyland Utilities in October 2010. He is responsible for developing and leading the transmission operations organization for Sharyland Utilities, including building a new transmission operations center to control and operate Sharyland's transmission assets. Mr. Tammar has over 30 years of experience in the electric utility industry that includes management and engineering positions with electric utility companies including Northeast Utilities, Montana-Dakota Utilities, and the New York Independent System Operator. He has served on numerous NERC and regional reliability committees, task forces, and working groups; most recently as the Vice Chair of the NERC Real-time Operations Standards Drafting Team. Mr. Tammar has an MBA in Accounting from Union College and a Master's in Electric Power Engineering from Rensselaer Polytechnic Institute. He is a member of the Institute of Electrical and Electronics Engineers (IEEE), and a member of the IEEE's Power and Energy Society and Technology Management Council.

Albert DiCaprio Strategist	PJM 955 Jefferson Ave. Valley Forge Corporate Center Norristown, PA 19403	1.610.666.8854 dicapram@pjm.com	Mr. DiCaprio has been employed by PJM since 1970. His experience at PJM includes the System Operations Department in which he helped develop PJM's generation control program, PJM's Accounting for regulation program, and PJM's Fuel Supply Emergency procedures; in the System Performance Department he initiated performance monitoring and benchmarking programs and PJM's Energy by Fuel type tracking system; and he helped launch PJM's first retail customer support program. As Senior Strategist, Mr. DiCaprio provides analysis and support for PJM positions on NERC standards and FERC initiatives. Mr. DiCaprio has served on various NERC committees most notably as Chairman of the Performance Subcommittee when the first Control Performance Standard was approved and on the Task Force whose efforts led to the development of the NERC Functional Model. Mr. DiCaprio serves as the chairman of the ISO/RTO's Standards Review Committee who review and comment on NERC Reliability Standards, NAESB Business Practices, and FERC initiatives related to reliability standards. Active in the IEEE, Mr. DiCaprio is a senior member and has published various papers and has served on Technical Activities committees for two Joint IEEE-CIGRE conferences. Internationally, Mr. DiCaprio serves as the chairman of the International Group on Comparison of Transmission Operation Practices. Mr. DiCaprio has been part of CIGRE's initiative into Energy Markets and has been active with Study Committee C5 (Markets and Regulation) since its beginning in 2000 and received the CIGRE 2009 Technical Committee Award for his contributions to the Study Committee. Mr. DiCaprio is also active in a Joint Working Group with Markets and Operations, and Working Groups on System Design (WG C5-7) and on Integration of Renewable resources and Demand-side Management (WG C5-11). Mr. DiCaprio has a Bachelor's Degree in Electrical Engineering from Drexel

			University and a Master's Degree in System Operations from the University of PA.
Jason Marshall Director, Reliability Compliance	ACES Power Marketing 4140 West 99th Street Carmel, IN 46032	1.317.344.7204 jmarshall@acespower.com	Jason Marshall is currently Director of Reliability Compliance for ACES Power Marketing (APM) in Carmel, IN. Mr. Marshall joined APM in April 2011 in this role. Mr. Marshall is currently responsible for leading APM's reliability compliance support service which provides advice, guidance, and processes to share resources and reliability compliance intelligence among APM's members and the National Rural Electric Cooperative Association (NRECA). Mr. Marshall has 15 years of experience in the energy industry including extensive experience in bulk power operations and ERO compliance. Mr. Marshall began his career in 1996 with Duke Energy as an Associate Engineer supporting their transmission tariff and bulk power operations. Immediately prior to joining APM, Mr. Marshall held positions of progressively increasing responsibility in operations engineering and ERO standards development and compliance at Midwest ISO in Carmel, IN. Mr. Marshall also has worked as a reliability coordinator for the MAIN Coordination Center in Lombard, IL. Mr. Marshall's industry experience includes reliability coordination, transmission operations, balancing authority operations, operations planning, EMS support, transmission tariff administration, reliability policy analysis, and new business start up. He has served on numerous NERC committees, drafting teams, and task forces. Mr. Marshall also has served as chairman of several RFC standards drafting teams and vice-chairman of the ISO/RTO Council's Standards Review Committee. Mr. Marshall graduated with a Bachelor of Science degree in electrical engineering from Rose-Hulman Institute of Technology. He also received a Master of Science in Electrical Engineering (with a power systems emphasis) from Clemson University and a Master of Business Administration from the University of Indianapolis. Mr. Marshall is a NERC-certified Reliability Operator and a Registered Professional Engineer

			in the states of North Carolina and Indiana.
H. Steven Myers Principal, Operating & Planning Standards	ERCOT 2705 West Lake Drive Taylor, TX 76574	1.512.248.3077 smyers@ercot.com	Steve Myers, Principal, Operating & Planning Standards at the Electric Reliability Council of Texas (ERCOT), has over forty-two years of electric system operations experience. Mr. Myers first joined ERCOT in 1996 as the Security Center Manager at the inception of the ERCOT Independent System Operator (ISO). During his time at ERCOT, he has served as Security Center Manager, Manager of System Operations, Manager of Operations Support, Manager of Operating Standards, and now as Principal, Operating & Planning Standards. Mr. Myers has served in various positions related to NERC activities, standards development, and reliability standards compliance. He has been a member of the NERC RCWG, NERC ORS, the original RRSWG, the Version 0 Operating Standards SDT, numerous Reliability Standards SDTs, the NERC FMWG, and is presently an ISO/RTO Segment representative to the NERC Standards Committee. Mr. Myers is also a member of the ISO/RTO Council Standards Review Committee (SRC). Prior to joining ERCOT, Mr. Myers served as Manager of the North Texas Security Center. He also served as Operations Supervisor and as Supervisor of Operations Engineering for an investor-owned electric utility; including generation and transmission operations. As a more junior engineer, he served as an engineer in electrical distribution, with responsibilities including supervision of a transformer repair shop, supervision of an underground network group, and as an operations engineer at the system control center. Mr. Myers is a graduate of New Mexico State University, with a Bachelor of Science in Electrical Engineering (BSEE). He has a Master of Business Administration (MBA) degree in Management from the University of Texas at Arlington, and is a Registered Professional Engineer in the State of

			Texas. Mr. Myers served as an officer in the U. S. Naval Reserve as an Assistant Resident Officer in Charge of Construction in San Diego, California. His electrical engineering training enabled his oversight of all contracts for electrical systems on all bases in the San Diego area. Mr. Myers also gained experience with oversight of contracts of every nature on three assigned Navy bases in the area.
Gregory Van Pelt	CAISO 250 Outcropping Way Folsom, CA 95630	1.916.351.2190 gvanpelt@caiso.com	Gregory Van Pelt is currently an External Affairs Manager for the California Independent System Operator (ISO). Mr. Van Pelt has been involved in power system operations for nearly 40 years and was part of the original start-up staff at the ISO. Prior to his current assignment, his responsibilities included real-time operations, operations training, outage management, regional coordination and compliance, as well as developing and coordinating emergency response actions. Before coming to the ISO, Mr. Van Pelt spent 25 years with the Southern California Edison Company where his responsibilities were primarily in Electric System Operations and Emergency Management.

EXHIBIT G

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Violation Risk Factor and Violation Severity Level Assignments

Project 2010-INT-01 TOP-006-2 for FMPP

Violation Risk Factor and Violation Severity Level Assignments

This document provides the drafting team's justification for assignment of violation risk factors (VRFs) and violation severity levels (VSLs) for new Requirement R1.3 in TOP-006-3 – Monitoring System Conditions. None of the other existing, approved values are being changed.

The new requirement is assigned a VRF and a set of one or more VSLs. These elements support the determination of an initial value range for the Base Penalty Amount regarding violations of requirements in FERC-approved Reliability Standards, as defined in the ERO Sanction Guidelines.

Justification for Assignment of Violation Risk Factors in TOP-006-3, Requirement R1.3:

The SDT applied the following NERC criteria when proposing VRFs for the requirements in TOP-006-3, Requirement R1.3:

High Risk Requirement

A requirement that, if violated, could directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, directly cause or contribute to bulk electric system instability, separation, or a cascading sequence of failures, or could place the bulk electric system at an unacceptable risk of instability, separation, or cascading failures, or could hinder restoration to a normal condition.

Medium Risk Requirement

A requirement that, if violated, could directly affect the electrical state or the capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system. However, violation of a medium risk requirement is unlikely to lead to bulk electric system instability, separation, or cascading failures; or, a requirement in a planning time frame that, if violated, could, under emergency, abnormal, or restorative conditions anticipated by the preparations, 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. However, violation of a medium risk requirement is unlikely, under emergency, abnormal, or restoration conditions anticipated by the preparations, to lead to bulk electric system instability, separation, or cascading failures, nor to hinder restoration to a normal condition.

Lower Risk Requirement

A requirement that is administrative in nature and a requirement that, if violated, would not be expected to adversely affect the electrical state or capability of the bulk electric system, or the ability to effectively monitor and control the bulk electric system; or, a requirement that is administrative in nature and a requirement in a planning time frame that, if violated, would not, under the emergency, abnormal, or restorative conditions anticipated by the preparations, be expected to 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 planning requirement that is administrative in nature.

The SDT also considered consistency with the FERC Violation Risk Factor Guidelines for setting VRFs:[1]

Guideline (1) — Consistency with the Conclusions of the Final Blackout Report

The Commission seeks to ensure that Violation Risk Factors assigned to Requirements of Reliability Standards in these identified areas appropriately reflect their historical critical impact on the reliability of the Bulk-Power System.

In the VSL Order, FERC listed critical areas (from the Final Blackout Report) where violations could severely affect the reliability of the Bulk-Power System:[2]

- Emergency operations
- Vegetation management
- Operator personnel training
- Protection systems and their coordination
- Operating tools and backup facilities
- Reactive power and voltage control
- System modeling and data exchange
- Communication protocol and facilities
- Requirements to determine equipment ratings
- Synchronized data recorders
- Clearer criteria for operationally critical facilities
- Appropriate use of transmission loading relief

Guideline (2) — Consistency within a Reliability Standard

The Commission expects a rational connection between the sub-Requirement Violation Risk Factor assignments and the main Requirement Violation Risk Factor assignment.

[1] North American Electric Reliability Corp., 119 FERC ¶ 61,145, order on reh'g and compliance filing, 120 FERC ¶ 61,145 (2007) ("VRF Rehearing Order").
[2] Id. at footnote 15.

Guideline (3) — Consistency among Reliability Standards

The Commission expects the assignment of Violation Risk Factors corresponding to Requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

Guideline (4) — Consistency with NERC's Definition of the Violation Risk Factor Level

Guideline (4) was developed to evaluate whether the assignment of a particular Violation Risk Factor level conforms to NERC's definition of that risk level.

Guideline (5) — Treatment of Requirements that Co-mingle More Than One Obligation

Where a single Requirement co-mingles a higher risk reliability objective and a lesser risk reliability objective, the VRF assignment for such Requirements must not be watered down to reflect the lower risk level associated with the less important objective of the Reliability Standard.

The following discussion addresses how the SDT considered FERC's VRF Guidelines 2 through 5. The team did not address Guideline 1 directly because of an apparent conflict between Guidelines 1 and 4. Whereas Guideline 1 identifies a list of topics that encompass nearly all topics within NERC's Reliability Standards and implies that these requirements should be assigned a "High" VRF, Guideline 4 directs assignment of VRFs based on the impact of a specific requirement to the reliability of the system. The SDT believes that Guideline 4 is reflective of the intent of VRFs in the first instance and therefore concentrated its approach on the reliability impact of the requirements.

There are eleven requirements in TOP-001-2. None of the eleven requirements were assigned a "Lower" VRF. Requirements R1, R2, R4, R7, and R11 were assigned a "High" VRF while all of the other requirements were given a "Medium" VRF.

VRF for TOP-006-3, Requirement R1.3:

- FERC's Guideline 2 — Consistency within a Reliability Standard. The sub-requirements all require similar performance and all have the same VRF of Medium. Therefore, there is consistency.
- FERC's Guideline 3 — Consistency among Reliability Standards. This new requirement is exactly analogous to the approved Requirement R1.2 that is assigned a Medium VRF. The only difference is that Requirement R1.2 applies to a Transmission Operator while the new Requirement R1.3 applies to the Balancing Authority.
- FERC's Guideline 4 — Consistency with NERC's Definition of a VRF. Failure to supply the cited information will not, by itself, lead to instability, separation, or cascading failures. Failure to provide this information could, however, 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. Thus, a Medium VRF is justified.
- FERC's Guideline 5 — Treatment of Requirements that Co-mingle More Than One Objective. TOP-006-3, Requirement R1.3 contains only one objective, therefore only one VRF was assigned.

Justification for Assignment of Violation Severity Levels for TOP-006-3, Requirement R1.3:
In developing the VSLs for Requirement R1.3 in TOP-006-3, the SDT anticipated the evidence that would be reviewed during an audit, and developed its VSLs based on the noncompliance an auditor may find during a typical audit. The SDT based its assignment of VSLs on the following NERC criteria:

Lower	Moderate	High	Severe
Missing a minor element (or a small percentage) of the required performance The performance or product measured has significant value as it almost meets the full intent of the requirement.	Missing at least one significant element (or a moderate percentage) of the required performance. The performance or product measured still has significant value in meeting the intent of the requirement.	Missing more than one significant element (or is missing a high percentage) of the required performance or is missing a single vital component. The performance or product has limited value in meeting the intent of the requirement.	Missing most or all of the significant elements (or a significant percentage) of the required performance. The performance measured does not meet the intent of the requirement or the product delivered cannot be used in meeting the intent of the requirement.

FERC's VSL guidelines are presented below, followed by an analysis of whether the VSLs proposed for Requirement R1.3 in TOP-006-3 meet the FERC Guidelines for assessing VSLs:

Guideline 1: Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance
Compare the VSLs to any prior levels of non-compliance and avoid significant changes that may encourage a lower level of compliance than was required when levels of non-compliance were used.

Guideline 2: Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties
A violation of a "binary" type requirement must be a "Severe" VSL.
Do not use ambiguous terms such as "minor" and "significant" to describe noncompliant performance.

Guideline 3: Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement
VSLs should not expand on what is required in the requirement.

Guideline 4: Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations

. . . unless otherwise stated in the requirement, each instance of non-compliance with a requirement is a separate violation. Section 4 of the Sanction Guidelines states that assessing penalties on a per violation per day basis is the "default" for penalty calculations.

VSLs for TOP-006-3, Requirement R1.3:

R#	Compliance with NERC's VSL Guidelines	Guideline 1 Violation Severity Level Assignments Should Not Have the Unintended Consequence of Lowering the Current Level of Compliance	Guideline 2 Violation Severity Level Assignments Should Ensure Uniformity and Consistency in the Determination of Penalties Guideline 2a: The Single Violation Severity Level Assignment Category for "Binary" Requirements Is Not Consistent Guideline 2b: Violation Severity Level Assignments that Contain Ambiguous Language	Guideline 3 Violation Severity Level Assignment Should Be Consistent with the Corresponding Requirement	Guideline 4 Violation Severity Level Assignment Should Be Based on A Single Violation, Not on A Cumulative Number of Violations
R1.	Meets NERC's VSL guidelines – Severe: Missing most or all of the significant elements (or a significant percentage) of the required performance.	The proposed requirement is exactly analogous to approved TOP-006-2, Requirement R1.2. That VSL is also based on a single violation and is binary. Thus, the VSLs in the proposed standard do not lower the level of compliance currently required by setting VSLs that are less punitive than those already proposed.	The proposed VSL does not use any ambiguous terminology, thereby supporting uniformity and consistency in the determination of similar penalties for similar violations.	The proposed VSL uses the same terminology as used in the associated requirement, and is, therefore, consistent with the requirement.	The VSL is based on a single violation and not cumulative violations.