



July 28, 2010

VIA ELECTRONIC FILING

David Erickson
President and Chief Executive Officer
Alberta Electric System Operator
2500, 330 – 5 Avenue SW
Calgary, Alberta
T2P 0L4

Re: *North American Electric Reliability Corporation*

Dear Mr. Erickson:

The North American Electric Reliability Corporation (“NERC”) hereby submits this Notice of Filing of an interpretation of Requirement R8 in NERC Reliability Standard TOP-001-1 — Reliability Responsibilities and Authorities, as set forth in **Exhibit A** to this Notice. The standard that includes the interpretation will be referred to as TOP-001-1a. For ease of reference, the interpretation will be referred to as TOP-001-1a in this filing.

The interpretation was approved by the NERC Board of Trustees on May 12, 2010.

NERC’s Notice consists of the following:

- This transmittal letter;
- A table of contents for the filing;
- A narrative description explaining how the interpretation meets the reliability goal of the standard involved;
- Interpretation of TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8 (**Exhibit A**);

- Reliability Standard TOP-001-1a — Reliability Responsibilities and Authorities, that includes the appended interpretation of Requirement R8 (**Exhibit B**);
- The complete development record of the interpretation (**Exhibit C**); and
- A roster of the interpretation development team (**Exhibit D**).

Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins

*Attorney for North American Electric
Reliability Corporation*

**BEFORE THE
ALBERTA ELECTRIC SYSTEM OPERATOR**

**NORTH AMERICAN ELECTRIC)
RELIABILITY CORPORATION)**

**NOTICE OF FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION OF
INTERPRETATION TO RELIABILITY STANDARD
TOP-001-1 — RELIABILITY RESPONSIBILITIES AND AUTHORITIES,
REQUIREMENT R8**

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Exhibit A — Interpretation of TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, proposed for Approval.

Exhibit B — Reliability Standard TOP-001-1a — Reliability Responsibilities and Authorities, Requirement R8, that includes the appended interpretation.

Exhibit C — Complete Record of Development of the Interpretation of TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8.

Exhibit D — Roster of the Interpretation Development Team.

I. INTRODUCTION

The North American Electric Reliability Corporation (“NERC”) hereby submits notice of an interpretation to a requirement of a NERC Reliability Standard:

- TOP-001-1 — Reliability Responsibilities and Authorities

No modification to the language contained in this specific requirement is being proposed through the interpretation. The NERC Board of Trustees approved the interpretation to Reliability Standard TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, on May 12, 2010. **Exhibit A** to this filing sets forth the proposed interpretation. **Exhibit B** contains the TOP-001-1a Reliability Standard that includes the appended interpretation. **Exhibit C** contains the complete development record of the proposed interpretation to TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8. **Exhibit D** contains a roster of the interpretation development team.

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

II. NOTICES AND COMMUNICATIONS

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

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III. BACKGROUND

a. Basis for Proposed Interpretation

While this interpretation does not represent a new or modified Reliability Standard requirement, it does provide instruction with regard to the intent and, in some cases, application of the requirement that will guide compliance to it.

b. Reliability Standards Development Procedure and Interpretation

All persons who are directly or materially affected by the reliability of the North American bulk power system are permitted to request an interpretation of a Reliability Standard, as discussed in NERC's *Reliability Standards Development Procedure*, which is incorporated into the NERC Rules of Procedure as Appendix 3A.¹ Upon request,

¹ See NERC's *Reliability Standards Development Procedure Version 7*, approved by the NERC Board of Trustees on November 5, 2009, and by FERC on February 5, 2010 ("*Reliability Standards Development*

NERC will assemble a team with the relevant expertise to address the interpretation request and, within 45 days, present the interpretation response for industry ballot. If approved by the ballot pool and the NERC Board of Trustees, the interpretation is appended to the Reliability Standard and filed for approval by FERC and applicable governmental authorities in Canada to be made effective when approved. When the affected Reliability Standard is next substantively revised using the *Reliability Standards Development Procedure*, the interpretation will then be incorporated into the Reliability Standard.

The interpretation set out in **Exhibit A** has been developed and approved by industry stakeholders using NERC's *Reliability Standards Development Procedure*. It was approved by the NERC Board of Trustees on May 12, 2010.

IV. Reliability Standard TOP-001-1 — Transmission Operations — Reliability Responsibilities and Authorities Requirement R8

NERC submitted Reliability Standard TOP-001-1 on December 5, 2006. In Section IV (a), below, NERC discusses the proposed interpretation to the standard, and explains the need for the development of an interpretation to Requirement R8 of the TOP-001-1 Reliability Standard. In this discussion, NERC demonstrates that the interpretation, contained in **Exhibit B**, is consistent with the stated reliability goals of the Reliability Standard. Section IV (b) below, describes the stakeholder ballot results and an explanation of how stakeholder comments were considered and addressed by the interpretation development team assembled to provide the interpretation.

Procedure”), available at http://www.nerc.com/files/Appendix_3A_ReliabilityStandardsDevelopmentProcedure_02052010.pdf.

The complete development record for the interpretation, set forth in **Exhibit C**, includes the request for the interpretation, the response to the request for the interpretation, the ballot pool and the final ballot results by registered ballot body members, stakeholder comments received during the balloting and an explanation of how those comments were considered. **Exhibit D** contains a roster of the team members who developed the proposed interpretation.

a. Justification of Interpretation

The stated purpose of Reliability Standard TOP-001-1 — Reliability Responsibilities and Authorities is to ensure reliability entities have clear decision-making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency.

Requirement R8 of the standard provides:

- R8.** During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

On December 15, 2009, Florida Municipal Power Pool submitted a request for formal interpretation of TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8. The request centered on the responsibilities of Balancing Authorities and Transmission Operators during a system emergency.

Florida Municipal Power Pool requested clarification on several aspects of Requirement R8 as outlined in the questions below. Members of the Real Time

Operations Standard Drafting Team were asked to develop the response to the interpretation request that is presented below:

Question

Balancing real power is not a function of a [Transmission Operator] and balancing reactive power is not a function of a [Balancing Authority]. For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the [Transmission Operator] responsibility to immediately take corrective action to restore Reactive Power Balance?

Response

The answer to both questions is yes. According to the NERC Glossary of Terms Used in Reliability Standards, the Transmission Operator is responsible for the reliability of its “local” transmission system, and operates or directs the operations of the transmission facilities. Similarly, the Balancing Authority is responsible for maintaining load-interchange-generation balance, i.e., real power balance. In the context of this requirement, the Transmission Operator is the functional entity that balances reactive power. Reactive power balancing can be accomplished by issuing instructions to the Balancing Authority or Generator Operators to alter reactive power injection. Based on NERC Reliability Standard BAL-005-1b Requirement R6, the Transmission Operator has no requirement to compute an Area Control Error (ACE) signal or to balance real power. Based on NERC Reliability Standard VAR-001-1 Requirement R8, the Balancing Authority is not required to resolve reactive power balance issues. According to TOP-001-1 Requirement R3, the Balancing Authority is only required to comply with Transmission Operator or Reliability Coordinator instructions to change injections of reactive power.

The interpretation is consistent with the stated purpose of the Reliability Standard, which is to ensure reliability entities have clear decision-making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency. The interpretation clarifies the responsibilities of Balancing Authorities and Transmission Operators during a system emergency by referencing the *NERC Glossary of Terms Used in Reliability Standards* as well as other relevant Reliability Standards. The Transmission Operator is responsible for the reliability of its “local” transmission system, and operates or directs the operations of the transmission facilities.

In the context of this requirement, the Transmission Operator is the functional entity that assesses the need for and balances reactive power. According to the *NERC Glossary of Terms Used in Reliability Standards*, Reactive Power is “The portion of electricity that establishes and sustains the electric and magnetic fields of alternating-current equipment. Reactive power must be supplied to most types of magnetic equipment, such as motors and transformers. It also must supply the reactive losses on transmission facilities. Reactive power is provided by generators, synchronous condensers, or electrostatic equipment such as capacitors and directly influences electric system voltage. It is usually expressed in kilovars (kvar) or megavars (MVAR).” During a system emergency, the Transmission Operator can balance reactive power by issuing instructions to (or directing) the Balancing Authority or Generator Operators to alter reactive power injection from its generating resources or may direct its own personnel to alter the reactive contribution of equipment (*e.g.* capacitors) at its disposal.

Furthermore, VAR-001-1 — Voltage and Reactive Control, Requirement R8 states “Each Transmission Operator shall operate or direct the operation of capacitive and inductive reactive resources within its area — including reactive generation scheduling; transmission line and reactive resource switching; and, if necessary, load shedding — to maintain system and Interconnection voltages within established limits.”

Similarly, the Balancing Authority is the responsible entity that integrates resource plans ahead of time, maintains load-interchange-generation balance within a Balancing Authority Area, and supports Interconnection frequency in real time. In the context of this requirement, the Balancing Authority is the functional entity that balances real power. According to the *NERC Glossary of Terms Used in Reliability Standards*,

Real Power is “The portion of electricity that supplies energy to the load.” NERC Reliability Standard BAL-005-1b — Automatic Generation Control, Requirement R6 states “The Balancing Authority’s AGC shall compare total Net Actual Interchange to total Net Scheduled Interchange plus Frequency Bias obligation to determine the Balancing Authority’s ACE. Single Balancing Authorities operating asynchronously may employ alternative ACE calculations such as (but not limited to) flat frequency control. If a Balancing Authority is unable to calculate ACE for more than 30 minutes it shall notify its Reliability Coordinator.” The ACE is an instantaneous signal the Balancing Authority uses to monitor its performance in maintaining its load (real power) – interchange – generation balance. According to NERC Reliability Standard TOP-001-1 Requirement R3, “...each Balancing Authority and Generator Operator shall comply with reliability directives issued by the Transmission Operator, unless such actions would violate safety, equipment, regulatory or statutory requirements.” The interpretation therefore is consistent with the Reliability Standard’s purpose.

b. Summary of the Reliability Standard Development Proceedings

NERC presented the interpretation response for pre-ballot review on January 29, 2010. The initial ballot was conducted from March 3, 2010 through March 16, 2010 and achieved a quorum of 88.24 percent with a weighted affirmative approval of 98.27 percent. Because no negative votes included a comment, the results from the initial ballot are final.

V. CONCLUSION

NERC requests that the AESO take the steps necessary to make the proposed interpretation to Reliability Standard TOP-001-1, as set out in Exhibit A, effective within the province of Alberta.

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Exhibit A

Interpretation of Reliability Standard TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8 Proposed for Approval

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

| Request for an Interpretation of a Reliability Standard |
|--|
| Date submitted: December 15, 2009 |
| Date accepted: December 21, 2009 |
| 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-001-1 |
| Standard Title: Reliability Responsibilities and Authorities |
| Identify specifically what requirement needs clarification: |
| <p>Requirement Number and Text of Requirement:</p> <p>R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.</p> <p>Clarification needed:</p> <p>Balancing real power is not a function of a TOP and balancing reactive power is not a function of a BA. For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance?</p> |
| Identify the material impact associated with this interpretation: |
| <p>Identify the material impact to your organization or others caused by the lack of clarity or an incorrect interpretation of this standard.</p> <p>Not having the correct interpretation of this requirement could cause a TOP only (TOP that is not a BA) or BA only (BA that is not a TOP) to be found non-compliant.</p> |

Project 2009-31: Response to Request for an Interpretation of TOP-001-1, Requirement R8, for the Florida Municipal Power Pool

The following interpretation of TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, was developed by the Real-time Operations Standard Drafting Team.

Requirement Number and Text of Requirement

R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

Question

For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance?

Response

The answer to both questions is yes. According to the NERC *Glossary of Terms Used in Reliability Standards*, the Transmission Operator is responsible for the reliability of its "local" transmission system, and operates or directs the operations of the transmission facilities. Similarly, the Balancing Authority is responsible for maintaining load-interchange-generation balance, i.e., real power balance. In the context of this requirement, the Transmission Operator is the functional entity that balances reactive power. Reactive power balancing can be accomplished by issuing instructions to the Balancing Authority or Generator Operators to alter reactive power injection. Based on NERC Reliability Standard BAL-005-1b Requirement R6, the Transmission Operator has no requirement to compute an Area Control Error (ACE) signal or to balance real power. Based on NERC Reliability Standard VAR-001-1 Requirement R8, the Balancing Authority is not required to resolve reactive power balance issues. According to TOP-001-1 Requirement R3, the Balancing Authority is only required to comply with Transmission Operator or Reliability Coordinator instructions to change injections of reactive power.

Exhibit B

**Reliability Standard TOP-001-1 — Reliability Responsibilities and Authorities,
Requirement R8 that includes the Appended Interpretation**

A. Introduction

1. **Title:** **Reliability Responsibilities and Authorities**
2. **Number:** TOP-001-1a
Purpose: To ensure reliability entities have clear decision-making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency.
3. **Applicability**
 - 3.1. Balancing Authorities
 - 3.2. Transmission Operators
 - 3.3. Generator Operators
 - 3.4. Distribution Providers
 - 3.5. Load Serving Entities
4. **Effective Date:** Immediately after approval of applicable regulatory authorities.

B. Requirements

- R1.** Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies.
- R2.** Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.
- R3.** Each Transmission Operator, Balancing Authority, and Generator Operator shall comply with reliability directives issued by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued by the Transmission Operator, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the Transmission Operator, Balancing Authority or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.
- R4.** Each Distribution Provider and Load Serving Entity shall comply with all reliability directives issued by the Transmission Operator, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances, the Distribution Provider or Load Serving Entity shall immediately inform the Transmission Operator of the inability to perform the directive so that the Transmission Operator can implement alternate remedial actions.
- R5.** Each Transmission Operator shall inform its Reliability Coordinator and any other potentially affected Transmission Operators of real time or anticipated emergency conditions, and take actions to avoid, when possible, or mitigate the emergency.

- R6.** Each Transmission Operator, Balancing Authority, and Generator Operator shall render all available emergency assistance to others as requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements.
- R7.** Each Transmission Operator and Generator Operator shall not remove Bulk Electric System facilities from service if removing those facilities would burden neighboring systems unless:
 - R7.1.** For a generator outage, the Generator Operator shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the Reliability Coordinator and other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.
 - R7.2.** For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.
 - R7.3.** When time does not permit such notifications and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the Generator Operator shall notify the Transmission Operator, and the Transmission Operator shall notify its Reliability Coordinator and adjacent Transmission Operators, at the earliest possible time.
- R8.** During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

C. Measures

- M1.** Each Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, signed agreements, an authority letter signed by an officer of the company, or other equivalent evidence that will be used to confirm that it has the authority, and has exercised the authority, to alleviate operating emergencies as described in Requirement 1.
- M2.** If an operating emergency occurs the Transmission Operator that experienced the emergency shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it took immediate actions to alleviate the operating emergency including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc. (Requirement 2)
- M3.** Each Transmission Operator, Balancing Authority, and Generator Operator shall have and provide upon request evidence such as operator logs, voice recordings or

transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it complied with its Reliability Coordinator's reliability directives. If the Transmission Operator, Balancing Authority or Generator Operator did not comply with the directive because it would violate safety, equipment, regulatory or statutory requirements, it shall provide evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that it immediately informed the Reliability Coordinator of its inability to perform the directive. (Requirement 3)

- M4.** Each Balancing Authority, Generator Operator, Distribution Provider and Load Serving Entity shall have and provide upon request evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it complied with its Transmission Operator's reliability directives. If the Balancing Authority, Generator Operator, Distribution Provider and Load Serving Entity did not comply with the directive because it would violate safety, equipment, regulatory or statutory requirements, it shall provide evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that it immediately informed the Transmission Operator of its inability to perform the directive. (Requirements 3 and 4)
- M5.** The Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it informed its Reliability Coordinator and any other potentially affected Transmission Operators of real time or anticipated emergency conditions, and took actions to avoid, when possible, or to mitigate an emergency. (Requirement 5)
- M6.** The Transmission Operator, Balancing Authority, and Generator Operator shall each have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it rendered assistance to others as requested, provided that the requesting entity had implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements. (Requirement 6)
- M7.** The Transmission Operator and Generator Operator shall each have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it notified either their Transmission Operator in the case of the Generator Operator, or other Transmission Operators, and the Reliability Coordinator when it removed Bulk Electric System facilities from service if removing those facilities would burden neighboring systems. (Requirement 7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organizations shall be responsible for compliance monitoring.

1.2. 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.

1.3. Data Retention

Each Transmission Operator shall have the current in-force document to show that it has the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area. (Measure 1)

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measures 1 through 7, including evidence of directives issued for Measures 3 and 4.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measures 3, 4 and 6 including evidence of directives issued for Measures 3 and 4.

Each Generator Operator shall keep 90 days of historical data (evidence) for Measures 3, 4, 6 and 7 including evidence of directives issued for Measures 3 and 4.

Each Distribution Provider and Load-serving Entity shall keep 90 days of historical data (evidence) for Measure 4.

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

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance for a Balancing Authority:

2.1. Level 1: Not applicable.

2.2. Level 2: Not applicable.

2.3. Level 3: Not applicable.

2.4. Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

2.4.1 Did not comply with a Reliability Coordinator's or Transmission Operator's reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive (R3)

2.4.2 Did not render emergency assistance to others as requested, in accordance with R6.

3. Levels of Non-Compliance for a Transmission Operator

3.1. Level 1: Not applicable.

3.2. Level 2: Not applicable.

3.3. Level 3: Not applicable.

3.4. Level 4: There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:

3.4.1 Does not have the documented authority to act as specified in R1.

3.4.2 Does not have evidence it acted with the authority specified in R1.

3.4.3 Did not take immediate actions to alleviate operating emergencies as specified in R2.

3.4.4 Did not comply with its Reliability Coordinator's reliability directive or did not immediately inform the Reliability Coordinator of its inability to perform that directive, as specified in R3.

3.4.5 Did not inform its Reliability Coordinator and other potentially affected Transmission Operators of real time or anticipated emergency conditions as specified in R5.

3.4.6 Did not take actions to avoid, when possible, or to mitigate an emergency as specified in R5.

3.4.7 Did not render emergency assistance to others as requested, as specified in R6.

3.4.8 Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and removing those facilities burdened a neighbor system.

4. Levels of Non-Compliance for a Generator Operator:

- 4.1. **Level 1:** Not applicable.
 - 4.2. **Level 2:** Not applicable.
 - 4.3. **Level 3:** Not applicable.
 - 4.4. **Level 4:** There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:
 - 4.4.1 Did not comply with a Reliability Coordinator or Transmission Operator’s reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive, as specified in R3.
 - 4.4.2 Did not render all available emergency assistance to others as requested, unless such actions would violate safety, equipment, or regulatory or statutory requirements as specified in R6.
 - 4.4.3 Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and burdened a neighbor system.
5. **Levels of Non-Compliance for a Distribution Provider or Load Serving Entity**
- 5.1. **Level 1:** Not applicable.
 - 5.2. **Level 2:** Not applicable.
 - 5.3. **Level 3:** Not applicable
 - 5.4. **Level 4:** Did not comply with a Transmission Operator’s reliability directive or immediately inform the Transmission Operator of its inability to perform that directive, as specified in R4.

E. Regional Differences

None identified.

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 |
| 1a | May 12, 2010 | Added Appendix 1 – Interpretation of R8 approved by BOT on May 12, 2010 | Interpretation |

Appendix 1

| Requirement Number and Text of Requirement |
|--|
| <p>R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.</p> |
| Question |
| <p>For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance?</p> |
| Response |
| <p>The answer to both questions is yes. According to the NERC <i>Glossary of Terms Used in Reliability Standards</i>, the Transmission Operator is responsible for the reliability of its “local” transmission system, and operates or directs the operations of the transmission facilities. Similarly, the Balancing Authority is responsible for maintaining load-interchange-generation balance, i.e., real power balance. In the context of this requirement, the Transmission Operator is the functional entity that balances reactive power. Reactive power balancing can be accomplished by issuing instructions to the Balancing Authority or Generator Operators to alter reactive power injection. Based on NERC Reliability Standard BAL-005-1b Requirement R6, the Transmission Operator has no requirement to compute an Area Control Error (ACE) signal or to balance real power. Based on NERC Reliability Standard VAR-001-1 Requirement R8, the Balancing Authority is not required to resolve reactive power balance issues. According to TOP-001-1 Requirement R3, the Balancing Authority is only required to comply with Transmission Operator or Reliability Coordinator instructions to change injections of reactive power.</p> |

A. Introduction

1. **Title:** Reliability Responsibilities and Authorities

2. **Number:** TOP-001-1a

Purpose: To ensure reliability entities have clear decision-making authority and capabilities to take appropriate actions or direct the actions of others to return the transmission system to normal conditions during an emergency.

3. **Applicability**

3.1. Balancing Authorities

3.2. Transmission Operators

3.3. Generator Operators

3.4. Distribution Providers

3.5. Load Serving Entities

4. **Effective Date:** ~~January 1, 2007~~ Immediately after approval of applicable regulatory authorities.

B. Requirements

- R1. Each Transmission Operator shall have the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area and shall exercise specific authority to alleviate operating emergencies.
- R2. Each Transmission Operator shall take immediate actions to alleviate operating emergencies including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc.
- R3. Each Transmission Operator, Balancing Authority, and Generator Operator shall comply with reliability directives issued by the Reliability Coordinator, and each Balancing Authority and Generator Operator shall comply with reliability directives issued by the Transmission Operator, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances the Transmission Operator, Balancing Authority or Generator Operator shall immediately inform the Reliability Coordinator or Transmission Operator of the inability to perform the directive so that the Reliability Coordinator or Transmission Operator can implement alternate remedial actions.
- R4. Each Distribution Provider and Load Serving Entity shall comply with all reliability directives issued by the Transmission Operator, including shedding firm load, unless such actions would violate safety, equipment, regulatory or statutory requirements. Under these circumstances, the Distribution Provider or Load Serving Entity shall immediately inform the Transmission Operator of the inability to perform the directive so that the Transmission Operator can implement alternate remedial actions.
- R5. Each Transmission Operator shall inform its Reliability Coordinator and any other potentially affected Transmission Operators of real time or anticipated emergency conditions, and take actions to avoid, when possible, or mitigate the emergency.

- R6. Each Transmission Operator, Balancing Authority, and Generator Operator shall render all available emergency assistance to others as requested, provided that the requesting entity has implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements.
- R7. Each Transmission Operator and Generator Operator shall not remove Bulk Electric System facilities from service if removing those facilities would burden neighboring systems unless:
 - R7.1. For a generator outage, the Generator Operator shall notify and coordinate with the Transmission Operator. The Transmission Operator shall notify the Reliability Coordinator and other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.
 - R7.2. For a transmission facility, the Transmission Operator shall notify and coordinate with its Reliability Coordinator. The Transmission Operator shall notify other affected Transmission Operators, and coordinate the impact of removing the Bulk Electric System facility.
 - R7.3. When time does not permit such notifications and coordination, or when immediate action is required to prevent a hazard to the public, lengthy customer service interruption, or damage to facilities, the Generator Operator shall notify the Transmission Operator, and the Transmission Operator shall notify its Reliability Coordinator and adjacent Transmission Operators, at the earliest possible time.
- R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

C. Measures

- M1. Each Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, signed agreements, an authority letter signed by an officer of the company, or other equivalent evidence that will be used to confirm that it has the authority, and has exercised the authority, to alleviate operating emergencies as described in Requirement 1.
- M2. If an operating emergency occurs the Transmission Operator that experienced the emergency shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it took immediate actions to alleviate the operating emergency including curtailing transmission service or energy schedules, operating equipment (e.g., generators, phase shifters, breakers), shedding firm load, etc. (Requirement 2)
- M3. Each Transmission Operator, Balancing Authority, and Generator Operator shall have and provide upon request evidence such as operator logs, voice recordings or

transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it complied with its Reliability Coordinator's reliability directives. If the Transmission Operator, Balancing Authority or Generator Operator did not comply with the directive because it would violate safety, equipment, regulatory or statutory requirements, it shall provide evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that it immediately informed the Reliability Coordinator of its inability to perform the directive. (Requirement 3)

- M4. Each Balancing Authority, Generator Operator, Distribution Provider and Load Serving Entity shall have and provide upon request evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it complied with its Transmission Operator's reliability directives. If the Balancing Authority, Generator Operator, Distribution Provider and Load Serving Entity did not comply with the directive because it would violate safety, equipment, regulatory or statutory requirements, it shall provide evidence such as operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that it immediately informed the Transmission Operator of its inability to perform the directive. (Requirements 3 and 4)
- M5. The Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it informed its Reliability Coordinator and any other potentially affected Transmission Operators of real time or anticipated emergency conditions, and took actions to avoid, when possible, or to mitigate an emergency. (Requirement 5)
- M6. The Transmission Operator, Balancing Authority, and Generator Operator shall each have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it rendered assistance to others as requested, provided that the requesting entity had implemented its comparable emergency procedures, unless such actions would violate safety, equipment, or regulatory or statutory requirements. (Requirement 6)
- M7. The Transmission Operator and Generator Operator shall each have and provide upon request evidence that could include, but is not limited to, operator logs, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to determine if it notified either their Transmission Operator in the case of the Generator Operator, or other Transmission Operators, and the Reliability Coordinator when it removed Bulk Electric System facilities from service if removing those facilities would burden neighboring systems. (Requirement 7)

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Regional Reliability Organizations shall be responsible for compliance monitoring.

1.2. 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.

1.3. Data Retention

Each Transmission Operator shall have the current in-force document to show that it has the responsibility and clear decision-making authority to take whatever actions are needed to ensure the reliability of its area. (Measure 1)

Each Transmission Operator shall keep 90 days of historical data (evidence) for Measures 1 through 7, including evidence of directives issued for Measures 3 and 4.

Each Balancing Authority shall keep 90 days of historical data (evidence) for Measures 3, 4 and 6 including evidence of directives issued for Measures 3 and 4.

Each Generator Operator shall keep 90 days of historical data (evidence) for Measures 3, 4, 6 and 7 including evidence of directives issued for Measures 3 and 4.

Each Distribution Provider and Load-serving Entity shall keep 90 days of historical data (evidence) for Measure 4.

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

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance for a Balancing Authority:

- 2.1. **Level 1:** Not applicable.
- 2.2. **Level 2:** Not applicable.
- 2.3. **Level 3:** Not applicable.
- 2.4. **Level 4:** There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:
 - 2.4.1 Did not comply with a Reliability Coordinator's or Transmission Operator's reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive (R3)
 - 2.4.2 Did not render emergency assistance to others as requested, in accordance with R6.

3. Levels of Non-Compliance for a Transmission Operator

- 3.1. **Level 1:** Not applicable.
- 3.2. **Level 2:** Not applicable.
- 3.3. **Level 3:** Not applicable.
- 3.4. **Level 4:** There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:
 - 3.4.1 Does not have the documented authority to act as specified in R1.
 - 3.4.2 Does not have evidence it acted with the authority specified in R1.
 - 3.4.3 Did not take immediate actions to alleviate operating emergencies as specified in R2.
 - 3.4.4 Did not comply with its Reliability Coordinator's reliability directive or did not immediately inform the Reliability Coordinator of its inability to perform that directive, as specified in R3.
 - 3.4.5 Did not inform its Reliability Coordinator and other potentially affected Transmission Operators of real time or anticipated emergency conditions as specified in R5.
 - 3.4.6 Did not take actions to avoid, when possible, or to mitigate an emergency as specified in R5.
 - 3.4.7 Did not render emergency assistance to others as requested, as specified in R6.
 - 3.4.8 Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and removing those facilities burdened a neighbor system.

4. Levels of Non-Compliance for a Generator Operator:

Standard TOP-001-1a — Reliability Responsibilities and Authorities

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- 4.1. **Level 1:** Not applicable.
- 4.2. **Level 2:** Not applicable.
- 4.3. **Level 3:** Not applicable.
- 4.4. **Level 4:** There shall be a separate Level 4 non-compliance, for every one of the following requirements that is in violation:
 - 4.4.1 Did not comply with a Reliability Coordinator or Transmission Operator’s reliability directive or did not immediately inform the Reliability Coordinator or Transmission Operator of its inability to perform that directive, as specified in R3.
 - 4.4.2 Did not render all available emergency assistance to others as requested, unless such actions would violate safety, equipment, or regulatory or statutory requirements as specified in R6.
 - 4.4.3 Removed Bulk Electric System facilities from service under conditions other than those specified in R7.1, 7.2, and 7.3, and burdened a neighbor system.
- 5. **Levels of Non-Compliance for a Distribution Provider or Load Serving Entity**
 - 5.1. **Level 1:** Not applicable.
 - 5.2. **Level 2:** Not applicable.
 - 5.3. **Level 3:** Not applicable
 - 5.4. **Level 4:** Did not comply with a Transmission Operator’s reliability directive or immediately inform the Transmission Operator of its inability to perform that directive, as specified in R4.

E. Regional Differences

None identified.

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 |
| 1a | May 12, 2010 | Added Appendix 1 – Interpretation of R8 approved by BOT on May 12, 2010 | Interpretation |

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Appendix 1

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Requirement Number and Text of Requirement

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R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

Question

For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance?

Response

The answer to both questions is yes. According to the NERC *Glossary of Terms Used in Reliability Standards*, the Transmission Operator is responsible for the reliability of its “local” transmission system, and operates or directs the operations of the transmission facilities. Similarly, the Balancing Authority is responsible for maintaining load-interchange-generation balance, i.e., real power balance. In the context of this requirement, the Transmission Operator is the functional entity that balances reactive power. Reactive power balancing can be accomplished by issuing instructions to the Balancing Authority or Generator Operators to alter reactive power injection. Based on NERC Reliability Standard BAL-005-1b Requirement R6, the Transmission Operator has no requirement to compute an Area Control Error (ACE) signal or to balance real power. Based on NERC Reliability Standard VAR-001-1 Requirement R8, the Balancing Authority is not required to resolve reactive power balance issues. According to TOP-001-1 Requirement R3, the Balancing Authority is only required to comply with Transmission Operator or Reliability Coordinator instructions to change injections of reactive power.

Exhibit C

**Complete Record of Development of the interpretation for Reliability Standard
TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8**

Project 2009-31 Interpretation of TOP-001-1 R8

Status: The interpretation was approved by the NERC Board of Trustees on May 11, 2010. The interpretation will be submitted to FERC for approval.

Purpose/Industry Need:

Florida Municipal Power Pool (FMPP) is seeking clarification as to whether it is the Balancing Authority's responsibility to immediately take corrective action to restore Real Power Balance and whether it is the TOP's responsibility to immediately take corrective action to restore Reactive Power Balance.

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 |
|--|--|---------------------------------|--|---------------------------|
| FMPP TOP-001-1 Requirement R8 Request for Interpretation (1) | Initial Ballot Vote>> Info>> (4) | 03/03/10 - 03/16/10 (closed) | Summary>> (5) Full Record>> (6) | |
| Interpretation (2) | Pre-ballot Review Join>> Info>> (3) | 01/29/10 - 03/01/10 (closed) | | |

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

| Request for an Interpretation of a Reliability Standard |
|--|
| Date submitted: December 15, 2009 |
| Date accepted: December 21, 2009 |
| 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-001-1 |
| Standard Title: Reliability Responsibilities and Authorities |
| Identify specifically what requirement needs clarification: |
| <p>Requirement Number and Text of Requirement:</p> <p>R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.</p> <p>Clarification needed:</p> <p>Balancing real power is not a function of a TOP and balancing reactive power is not a function of a BA. For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance?</p> |
| Identify the material impact associated with this interpretation: |
| <p>Identify the material impact to your organization or others caused by the lack of clarity or an incorrect interpretation of this standard.</p> <p>Not having the correct interpretation of this requirement could cause a TOP only (TOP that is not a BA) or BA only (BA that is not a TOP) to be found non-compliant.</p> |

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| Identify the material impact associated with this interpretation: |
| <p>Identify the material impact to your organization or others caused by the lack of clarity or an incorrect interpretation of this standard.</p> <p>Not having the correct interpretation of this requirement could cause a TOP only (TOP that is not a BA) or BA only (BA that is not a TOP) to be found non-compliant.</p> |

Project 2009-31: Response to Request for an Interpretation of TOP-001-1, Requirement R8, for the Florida Municipal Power Pool

The following interpretation of TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, was developed by the Real-time Operations Standard Drafting Team.

Requirement Number and Text of Requirement

R8. During a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore the Real and Reactive Power Balance. If the Balancing Authority or Transmission Operator is unable to restore Real and Reactive Power Balance it shall request emergency assistance from the Reliability Coordinator. If corrective action or emergency assistance is not adequate to mitigate the Real and Reactive Power Balance, then the Reliability Coordinator, Balancing Authority, and Transmission Operator shall implement firm load shedding.

Question

For Requirement R8 is the Balancing Authority responsibility to immediately take corrective action to restore Real Power Balance and is the TOP responsibility to immediately take corrective action to restore Reactive Power Balance?

Response

The answer to both questions is yes. According to the NERC *Glossary of Terms Used in Reliability Standards*, the Transmission Operator is responsible for the reliability of its "local" transmission system, and operates or directs the operations of the transmission facilities. Similarly, the Balancing Authority is responsible for maintaining load-interchange-generation balance, i.e., real power balance. In the context of this requirement, the Transmission Operator is the functional entity that balances reactive power. Reactive power balancing can be accomplished by issuing instructions to the Balancing Authority or Generator Operators to alter reactive power injection. Based on NERC Reliability Standard BAL-005-1b Requirement R6, the Transmission Operator has no requirement to compute an Area Control Error (ACE) signal or to balance real power. Based on NERC Reliability Standard VAR-001-1 Requirement R8, the Balancing Authority is not required to resolve reactive power balance issues. According to TOP-001-1 Requirement R3, the Balancing Authority is only required to comply with Transmission Operator or Reliability Coordinator instructions to change injections of reactive power.



NORTH AMERICAN ELECTRIC
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Standards Announcement

Ballot Pool and Pre-ballot Window

January 29–March 1, 2010

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

Project 2009-31: Interpretation of TOP-001-1 for the Florida Municipal Power Pool (FMPP)

An interpretation of standard TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, 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. EST on March 1, 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-2009-31_RFI_FMPP_in@nerc.com.

Next Steps

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

Project Background

FMPP asked if it is the Balancing Authority's responsibility to take immediate corrective action to restore real power balance and if it is the Transmission Operator's responsibility to take immediate corrective action to restore reactive power balance.

The request and interpretation can be found on the project page:

http://www.nerc.com/filez/standards/Project2009-31_TOP-001-1_R8_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.*



NORTH AMERICAN ELECTRIC
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Standards Announcement

Initial Ballot Window Open

March 3-16, 2010

Now available at: <https://standards.nerc.net/CurrentBallots.aspx>

Project 2009-31: Interpretation of TOP-001-1 for the Florida Municipal Power Pool (FMPP)

An initial ballot window for an interpretation of standard TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, for FMPP is now open **until 8 p.m. Eastern on March 16, 2010.**

Instructions

Members of the ballot pool associated with this project may log in and submit their votes from the following page: <https://standards.nerc.net/CurrentBallots.aspx>

Next Steps

Voting results will be posted and announced after the ballot window closes.

Project Background

FMPP asked if it is the Balancing Authority's responsibility to take immediate corrective action to restore real power balance and if it is the Transmission Operator's responsibility to take immediate corrective action to restore reactive power balance.

The request and interpretation can be found on the project page:

http://www.nerc.com/filez/standards/Project2009-31_TOP-001-1_R8_FMPP.html

Standards Development Process

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



NORTH AMERICAN ELECTRIC
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Standards Announcement

Final Ballot Results

Now available at: <https://standards.nerc.net/Ballots.aspx>

Project 2009-31: Interpretation of TOP-001-1 for the Florida Municipal Power Pool (FMPP)

The initial ballot for an interpretation of standard TOP-001-1 — Reliability Responsibilities and Authorities, Requirement R8, for Florida Municipal Power Pool ended March 16, 2010.

Ballot Results

Voting statistics are listed below, and the [Ballot Results](#) Web page provides a link to the detailed results:

Quorum: 88.24%

Approval: 98.27%

The ballot pool approved the interpretation. Since no negative votes included a comment (reason), the results from the initial ballot are final. Ballot criteria details are listed at the end of the announcement.

Next Steps

The interpretation will be submitted to the NERC Board of Trustees for approval.

Project Background

Florida Municipal Power Pool requested clarification as to whether it is the Balancing Authority's responsibility to immediately take corrective action to restore Real Power Balance and whether it is the TOP's responsibility to immediately take corrective action to restore Reactive Power Balance.

The request and interpretation are posted on the project page:

http://www.nerc.com/filez/standards/Project2009-31_TOP-001-1_R8_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.

Ballot Criteria

Approval requires both a (1) quorum, which is established by at least 75% of the members of the ballot pool for submitting either an affirmative vote, a negative vote, or an abstention, and (2) A two-thirds majority of the weighted segment votes cast must be affirmative; the number of votes cast is the sum of affirmative and negative votes, excluding abstentions and nonresponses. If there are no negative votes with reasons from the first ballot, the results of the first ballot shall stand. If, however, one or more members submit negative votes with reasons, a second ballot shall be conducted.

For more information or assistance,
please contact Lauren Koller at Lauren.Koller@nerc.net

User Name

Password

Log in

Register

- Ballot Pools
- Current Ballots
- Ballot Results
- Registered Ballot Body
- Proxy Voters

[Home Page](#)

| Ballot Results | |
|-------------------------------|--|
| Ballot Name: | Project 2009-31 - Interpretation - TOP-001-1 for FMPP_in |
| Ballot Period: | 3/3/2010 - 3/16/2010 |
| Ballot Type: | Initial |
| Total # Votes: | 240 |
| Total Ballot Pool: | 272 |
| Quorum: | 88.24 % The Quorum has been reached |
| Weighted Segment Vote: | 98.27 % |
| Ballot Results: | The Standard has Passed |

| Summary of Ballot Results | | | | | | | | |
|---------------------------|-------------|----------------|-------------|--------------|----------|--------------|-----------|-----------|
| Segment | Ballot Pool | Segment Weight | Affirmative | | Negative | | Abstain | No Vote |
| | | | # Votes | Fraction | # Votes | Fraction | # Votes | |
| 1 - Segment 1. | 79 | 1 | 64 | 0.955 | 3 | 0.045 | 3 | 9 |
| 2 - Segment 2. | 12 | 0.9 | 9 | 0.9 | 0 | 0 | 1 | 2 |
| 3 - Segment 3. | 66 | 1 | 54 | 0.947 | 3 | 0.053 | 2 | 7 |
| 4 - Segment 4. | 17 | 1 | 16 | 1 | 0 | 0 | 0 | 1 |
| 5 - Segment 5. | 48 | 1 | 39 | 0.975 | 1 | 0.025 | 1 | 7 |
| 6 - Segment 6. | 34 | 1 | 29 | 1 | 0 | 0 | 1 | 4 |
| 7 - Segment 7. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 - Segment 8. | 5 | 0.5 | 5 | 0.5 | 0 | 0 | 0 | 0 |
| 9 - Segment 9. | 4 | 0.3 | 3 | 0.3 | 0 | 0 | 1 | 0 |
| 10 - Segment 10. | 7 | 0.4 | 4 | 0.4 | 0 | 0 | 1 | 2 |
| Totals | 272 | 7.1 | 223 | 6.977 | 7 | 0.123 | 10 | 32 |

| Individual Ballot Pool Results | | | | |
|--------------------------------|---------------------------------------|-----------------|-------------|----------------------|
| Segment | Organization | Member | Ballot | Comments |
| 1 | Allegheny Power | Rodney Phillips | | |
| 1 | Ameren Services | Kirit S. Shah | Affirmative | |
| 1 | American Electric Power | Paul B. Johnson | Affirmative | |
| 1 | American Transmission Company, LLC | Jason Shaver | Affirmative | View |
| 1 | Associated Electric Cooperative, Inc. | John Bussman | | |
| 1 | Avista Corp. | Scott Kinney | Affirmative | |
| 1 | Baltimore Gas & Electric Company | John J. Moraski | Affirmative | View |
| 1 | BC Transmission Corporation | Gordon Rawlings | Affirmative | |

| | | | | |
|---|---|------------------------------|-------------|----------------------|
| 1 | Beaches Energy Services | Joseph S. Stonecipher | Affirmative | |
| 1 | Black Hills Corp | Eric Egge | Affirmative | |
| 1 | Bonneville Power Administration | Donald S. Watkins | Affirmative | |
| 1 | Brazos Electric Power Cooperative, Inc. | Tony Kroskey | Abstain | |
| 1 | CenterPoint Energy | Paul Rocha | Affirmative | |
| 1 | Central Maine Power Company | Brian Conroy | Affirmative | |
| 1 | City of Vero Beach | Randall McCamish | Affirmative | |
| 1 | City Utilities of Springfield, Missouri | Jeff Knottek | 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 | Dominion Virginia Power | William L. Thompson | Affirmative | |
| 1 | Duke Energy Carolina | Douglas E. Hils | Affirmative | |
| 1 | E.ON U.S. LLC | Larry Monday | | |
| 1 | East Kentucky Power Coop. | George S. Carruba | Affirmative | |
| 1 | Empire District Electric Co. | Ralph Frederick Meyer | Affirmative | |
| 1 | Entergy Corporation | George R. Bartlett | Affirmative | |
| 1 | FirstEnergy Energy Delivery | Robert Martinko | Affirmative | |
| 1 | Florida Keys Electric Cooperative Assoc. | Dennis Minton | | |
| 1 | Gainesville Regional Utilities | Luther E. Fair | Affirmative | |
| 1 | Georgia Transmission Corporation | Harold Taylor, II | Affirmative | |
| 1 | Great River Energy | Gordon Pietsch | Affirmative | |
| 1 | Hoosier Energy Rural Electric Cooperative, Inc. | Robert Solomon | Affirmative | View |
| 1 | Hydro One Networks, Inc. | Ajay Garg | Affirmative | |
| 1 | Idaho Power Company | Ronald D. Schellberg | Affirmative | |
| 1 | ITC Transmission | Elizabeth Howell | Affirmative | |
| 1 | JEA | Ted E Hobson | Affirmative | |
| 1 | Kansas City Power & Light Co. | Michael Gammon | Affirmative | |
| 1 | Keys Energy Services | Stan T. Rzad | Affirmative | |
| 1 | Lake Worth Utilities | Walt Gill | Negative | |
| 1 | Lakeland Electric | Larry E Watt | Affirmative | |
| 1 | Lee County Electric Cooperative | John W Delucca | Abstain | |
| 1 | Lincoln Electric System | Doug Bantam | Affirmative | |
| 1 | Long Island Power Authority | Jonathan Appelbaum | Affirmative | |
| 1 | Manitoba Hydro | Michelle Rheault | Affirmative | View |
| 1 | MEAG Power | Danny Dees | Affirmative | |
| 1 | MidAmerican Energy Co. | Terry Harbour | Affirmative | |
| 1 | National Grid | Saurabh Saksena | | |
| 1 | New York State Electric & Gas Corp. | Henry G. Masti | | |
| 1 | Northeast Utilities | David H. Boguslawski | Affirmative | |
| 1 | Northern Indiana Public Service Co. | Kevin M Largura | | |
| 1 | NorthWestern Energy | John Canavan | Affirmative | |
| 1 | Ohio Valley Electric Corp. | Robert Matthey | Affirmative | |
| 1 | Oklahoma Gas and Electric Co. | Marvin E VanBebber | Affirmative | |
| 1 | Oncor Electric Delivery | Michael T. Quinn | Affirmative | |
| 1 | Orlando Utilities Commission | Brad Chase | Affirmative | |
| 1 | Otter Tail Power Company | Lawrence R. Larson | Affirmative | |
| 1 | PacifiCorp | Mark Sampson | Negative | |
| 1 | Potomac Electric Power Co. | Richard J. Kafka | Affirmative | |
| 1 | PowerSouth Energy Cooperative | Larry D. Avery | Negative | |
| 1 | PPL Electric Utilities Corp. | Brenda L Truhe | Abstain | |
| 1 | Progress Energy Carolinas | Sammy Roberts | Affirmative | |
| 1 | Public Service Electric and Gas Co. | Kenneth D. Brown | Affirmative | |
| 1 | Puget Sound Energy, Inc. | Catherine Koch | | |
| 1 | Sacramento Municipal Utility District | Tim Kelley | Affirmative | |
| 1 | Salt River Project | Robert Kondziolka | Affirmative | |
| 1 | San Diego Gas & Electric | Linda Brown | Affirmative | |
| 1 | Santee Cooper | Terry L. Blackwell | Affirmative | |
| 1 | SCE&G | Henry Delk, Jr. | Affirmative | |
| 1 | Seattle City Light | Pawel Krupa | Affirmative | |
| 1 | South Texas Electric Cooperative | Richard McLeon | Affirmative | |
| 1 | Southern California Edison Co. | Dana Cabbell | Affirmative | |
| 1 | Southern Company Services, Inc. | Horace Stephen Williamson | Affirmative | |
| 1 | Southwest Transmission Cooperative, Inc. | James L. Jones | Affirmative | |
| 1 | Southwestern Power Administration | Gary W Cox | Affirmative | |
| 1 | Tampa Electric Co. | Thomas J. Szelistowski | | |

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|---|---|------------------------------|-------------|----------------------|
| 1 | Tri-State G & T Association Inc. | Keith V. Carman | Affirmative | |
| 1 | Tucson Electric Power Co. | John Tolo | Affirmative | |
| 1 | Westar Energy | Allen Klassen | Affirmative | |
| 1 | Western Area Power Administration | Brandy A Dunn | Affirmative | |
| 1 | Xcel Energy, Inc. | Gregory L Pieper | Affirmative | |
| 2 | Alberta Electric System Operator | Jason L. Murray | Affirmative | |
| 2 | BC Transmission Corporation | Famaraz Amjadi | Affirmative | |
| 2 | California ISO | Timothy VanBlaricom | Affirmative | |
| 2 | Electric Reliability Council of Texas, Inc. | Chuck B Manning | Affirmative | View |
| 2 | Florida Municipal Power Pool | Thomas E Washburn | Affirmative | |
| 2 | Independent Electricity System Operator | Kim Warren | Affirmative | View |
| 2 | ISO New England, Inc. | Kathleen Goodman | Abstain | View |
| 2 | Midwest ISO, Inc. | Jason L Marshall | Affirmative | |
| 2 | New Brunswick System Operator | Alden Briggs | | |
| 2 | New York Independent System Operator | Gregory Campoli | | |
| 2 | PJM Interconnection, L.L.C. | Tom Bowe | Affirmative | |
| 2 | Southwest Power Pool | Charles H Yeung | Affirmative | View |
| 3 | Alabama Power Company | Richard J. Mandes | Affirmative | |
| 3 | Ameren Services | Mark Peters | Affirmative | |
| 3 | American Electric Power | Raj Rana | | |
| 3 | Arizona Public Service Co. | Thomas R. Glock | Affirmative | |
| 3 | Atlantic City Electric Company | James V. Petrella | Affirmative | |
| 3 | BC Hydro and Power Authority | Pat G. Harrington | Abstain | |
| 3 | Black Hills Power | Andy Butcher | | |
| 3 | Blue Ridge Power Agency | Duane S. Dahlquist | Affirmative | |
| 3 | Bonneville Power Administration | Rebecca Berdahl | Affirmative | |
| 3 | City of Bartow, Florida | Matt Culverhouse | Affirmative | |
| 3 | City of Clewiston | Lynne Mila | Affirmative | |
| 3 | City of Farmington | Linda R. Jacobson | Affirmative | |
| 3 | City of Green Cove Springs | Gregg R Griffin | Negative | |
| 3 | Cleco Utility Group | Bryan Y Harper | Affirmative | |
| 3 | ComEd | Bruce Krawczyk | | |
| 3 | Consolidated Edison Co. of New York | Peter T Yost | Affirmative | |
| 3 | Constellation Energy | Carolyn Ingersoll | Affirmative | |
| 3 | Consumers Energy | David A. Lapinski | Affirmative | |
| 3 | Cowlitz County PUD | Russell A Noble | Affirmative | |
| 3 | Delmarva Power & Light Co. | Michael R. Mayer | Affirmative | |
| 3 | Detroit Edison Company | Kent Kujala | Affirmative | |
| 3 | Dominion Resources, Inc. | Jalal (John) Babik | Affirmative | |
| 3 | Duke Energy Carolina | Henry Ernst-Jr | Affirmative | |
| 3 | Entergy Services, Inc. | Matt Wolf | Affirmative | |
| 3 | FirstEnergy Solutions | Kevin Querry | Affirmative | View |
| 3 | Florida Municipal Power Agency | Joe McKinney | Negative | |
| 3 | Florida Power Corporation | Lee Schuster | Affirmative | |
| 3 | Gainesville Regional Utilities | Kenneth Simmons | | |
| 3 | Georgia Power Company | Anthony L Wilson | Affirmative | |
| 3 | Georgia System Operations Corporation | R Scott S. Barfield-McGinnis | Affirmative | |
| 3 | Grays Harbor PUD | Wesley W Gray | Affirmative | |
| 3 | Great River Energy | Sam Kokkinen | Affirmative | |
| 3 | Gulf Power Company | Gwen S Frazier | Affirmative | |
| 3 | Hydro One Networks, Inc. | Michael D. Penstone | Affirmative | |
| 3 | JEA | Garry Baker | Affirmative | |
| 3 | Kansas City Power & Light Co. | Charles Locke | Affirmative | |
| 3 | Kissimmee Utility Authority | Gregory David Woessner | Negative | |
| 3 | Lakeland Electric | Mace Hunter | Affirmative | |
| 3 | Lincoln Electric System | Bruce Merrill | Affirmative | |
| 3 | Los Angeles Department of Water & Power | Kenneth Silver | | |
| 3 | Louisville Gas and Electric Co. | Charles A. Freibert | Abstain | |
| 3 | Manitoba Hydro | Greg C Parent | Affirmative | View |
| 3 | MidAmerican Energy Co. | Thomas C. Mielnik | Affirmative | |
| 3 | Mississippi Power | Don Horsley | Affirmative | |
| 3 | New York Power Authority | Marilyn Brown | Affirmative | |
| 3 | Niagara Mohawk (National Grid Company) | Michael Schiavone | Affirmative | |
| 3 | Northern Indiana Public Service Co. | William SeDoris | Affirmative | |
| 3 | Ocala Electric Utility | David T. Anderson | Affirmative | |
| 3 | Orlando Utilities Commission | Ballard Keith Mutters | Affirmative | |
| 3 | PacifiCorp | John Apperson | Affirmative | |

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|---|---|-----------------------|-------------|----------------------|
| 3 | Platte River Power Authority | Terry L Baker | Affirmative | |
| 3 | Potomac Electric Power Co. | Robert Reuter | Affirmative | |
| 3 | Progress Energy Carolinas | Sam Waters | Affirmative | |
| 3 | Public Service Electric and Gas Co. | Jeffrey Mueller | Affirmative | |
| 3 | Public Utility District No. 2 of Grant County | Greg Lange | Affirmative | |
| 3 | Sacramento Municipal Utility District | James Leigh-Kendall | Affirmative | |
| 3 | Salt River Project | John T. Underhill | Affirmative | |
| 3 | Santee Cooper | Zack Dusenbury | Affirmative | |
| 3 | Seattle City Light | Dana Wheelock | Affirmative | |
| 3 | South Carolina Electric & Gas Co. | Hubert C. Young | | |
| 3 | Southern California Edison Co. | David Schiada | Affirmative | |
| 3 | Tampa Electric Co. | Ronald L Donahey | | |
| 3 | Tri-State G & T Association Inc. | Janelle Marriott | Affirmative | |
| 3 | Wisconsin Electric Power Marketing | James R. Keller | Affirmative | |
| 3 | Wisconsin Public Service Corp. | Gregory J Le Grave | Affirmative | |
| 3 | Xcel Energy, Inc. | Michael Ibold | Affirmative | |
| 4 | Alliant Energy Corp. Services, Inc. | Kenneth Goldsmith | Affirmative | |
| 4 | City of Clewiston | Kevin McCarthy | Affirmative | |
| 4 | City of New Smyrna Beach Utilities Commission | Timothy Beyrle | Affirmative | |
| 4 | Consumers Energy | David Frank Ronk | Affirmative | |
| 4 | Detroit Edison Company | Daniel Herring | Affirmative | |
| 4 | Florida Municipal Power Agency | Frank Gaffney | Affirmative | |
| 4 | Fort Pierce Utilities Authority | Thomas W. Richards | Affirmative | |
| 4 | Georgia System Operations Corporation | Guy Andrews | Affirmative | |
| 4 | Madison Gas and Electric Co. | Joseph G. DePoorter | Affirmative | View |
| 4 | Northern California Power Agency | Fred E. Young | | |
| 4 | Ohio Edison Company | Douglas Hohlbaugh | Affirmative | |
| 4 | Public Utility District No. 1 of Douglas County | Henry E. LuBean | Affirmative | |
| 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 | South Mississippi Electric Power Association | Steve McElhaney | Affirmative | |
| 4 | Wisconsin Energy Corp. | Anthony Jankowski | Affirmative | |
| 5 | AEP Service Corp. | Brock Ondayko | Affirmative | |
| 5 | Avista Corp. | Edward F. Groce | Affirmative | |
| 5 | Black Hills Corp | George Tatar | Affirmative | |
| 5 | Bonneville Power Administration | Francis J. Halpin | Affirmative | |
| 5 | City of Tallahassee | Alan Gale | Affirmative | |
| 5 | City Water, Light & Power of Springfield | Karl E. Kohlrus | Affirmative | |
| 5 | Cleco Power LLC | Grant Bryant | Affirmative | |
| 5 | Conectiv Energy Supply, Inc. | Kara Dundas | Affirmative | |
| 5 | Consolidated Edison Co. of New York | Edwin E Thompson | Affirmative | |
| 5 | Consumers Energy | James B Lewis | Affirmative | |
| 5 | Dairyland Power Coop. | Warren Schaefer | Affirmative | |
| 5 | Detroit Edison Company | Ronald W. Bauer | Affirmative | |
| 5 | Dominion Resources, Inc. | Mike Garton | Affirmative | |
| 5 | Duke Energy | Robert Smith | Affirmative | |
| 5 | Edison Mission Energy | Ellen Oswald | | |
| 5 | Entergy Corporation | Stanley M Jaskot | | |
| 5 | FirstEnergy Solutions | Kenneth Dresner | Affirmative | |
| 5 | Florida Municipal Power Agency | David Schumann | | |
| 5 | Great River Energy | Cynthia E Sulzer | Affirmative | |
| 5 | JEA | Donald Gilbert | Affirmative | |
| 5 | Kansas City Power & Light Co. | Scott Heidtbrink | Affirmative | |
| 5 | Kissimmee Utility Authority | Mike Blough | Affirmative | |
| 5 | Lincoln Electric System | Dennis Florum | Affirmative | |
| 5 | Louisville Gas and Electric Co. | Charlie Martin | Abstain | |
| 5 | Manitoba Hydro | Mark Aikens | Affirmative | View |
| 5 | MidAmerican Energy Co. | Christopher Schneider | Affirmative | |
| 5 | New York Power Authority | Gerald Mannarino | Affirmative | |
| 5 | Northern Indiana Public Service Co. | Michael K Wilkerson | Affirmative | |
| 5 | Orlando Utilities Commission | Richard Kinan | Affirmative | |
| 5 | PacifiCorp | Sandra L. Shaffer | Affirmative | |
| 5 | Portland General Electric Co. | Gary L Tingley | | |
| 5 | PowerSouth Energy Cooperative | Tim Hattaway | | |
| 5 | PPL Generation LLC | Mark A. Heimbach | Affirmative | |

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|----|--|------------------------------|-------------|----------------------|
| 5 | Progress Energy Carolinas | Wayne Lewis | Affirmative | |
| 5 | PSEG Power LLC | David Murray | Affirmative | |
| 5 | RRI Energy | Thomas J. Bradish | Affirmative | |
| 5 | Sacramento Municipal Utility District | Bethany Wright | Affirmative | |
| 5 | Salt River Project | Glen Reeves | Affirmative | |
| 5 | Seattle City Light | Michael J. Haynes | Negative | |
| 5 | Seminole Electric Cooperative, Inc. | Brenda K. Atkins | Affirmative | |
| 5 | South California Edison Company | Ahmad Sanati | Affirmative | |
| 5 | South Mississippi Electric Power Association | Jerry W Johnson | | |
| 5 | Tenaska, Inc. | Scott M. Helyer | Affirmative | |
| 5 | U.S. Army Corps of Engineers Northwestern Division | Karl Bryan | Affirmative | |
| 5 | U.S. Bureau of Reclamation | Martin Bauer P.E. | | |
| 5 | Wisconsin Electric Power Co. | Linda Horn | Affirmative | |
| 5 | Wisconsin Public Service Corp. | Leonard Rentmeester | Affirmative | |
| 5 | Xcel Energy, Inc. | Liam Noailles | Affirmative | |
| 6 | AEP Marketing | Edward P. Cox | Affirmative | |
| 6 | Black Hills Corp | Tyson Taylor | Affirmative | |
| 6 | Bonneville Power Administration | Brenda S. Anderson | Affirmative | |
| 6 | Cleco Power LLC | Matthew D Cripps | Affirmative | |
| 6 | Consolidated Edison Co. of New York | Nickesha P Carrol | Affirmative | |
| 6 | Constellation Energy Commodities Group | Chris Lyons | | |
| 6 | Dominion Resources, Inc. | Louis S Slade | Affirmative | |
| 6 | Duke Energy Carolina | Walter Yeager | Affirmative | |
| 6 | Entergy Services, Inc. | Terri F Benoit | | |
| 6 | FirstEnergy Solutions | Mark S Travaglianti | Affirmative | |
| 6 | Florida Municipal Power Agency | Richard L. Montgomery | Affirmative | |
| 6 | Florida Power & Light Co. | Silvia P Mitchell | | |
| 6 | Great River Energy | Donna Stephenson | Affirmative | |
| 6 | Kansas City Power & Light Co. | Thomas Saitta | Affirmative | |
| 6 | Lakeland Electric | Paul Shipps | Affirmative | |
| 6 | Lincoln Electric System | Eric Ruskamp | Affirmative | |
| 6 | Louisville Gas and Electric Co. | Daryn Barker | Abstain | |
| 6 | Manitoba Hydro | Daniel Prowse | Affirmative | View |
| 6 | New York Power Authority | Thomas Papadopoulos | Affirmative | |
| 6 | Northern Indiana Public Service Co. | Joseph O'Brien | Affirmative | |
| 6 | Omaha Public Power District | David Ried | Affirmative | |
| 6 | PacifiCorp | Gregory D Maxfield | Affirmative | |
| 6 | Progress Energy | James Eckelkamp | Affirmative | |
| 6 | PSEG Energy Resources & Trade LLC | James D. Hebson | Affirmative | |
| 6 | Public Utility District No. 1 of Chelan County | Hugh A. Owen | | |
| 6 | RRI Energy | Trent Carlson | Affirmative | |
| 6 | Salt River Project | Mike Hummel | Affirmative | |
| 6 | Santee Cooper | Suzanne Ritter | Affirmative | |
| 6 | Seattle City Light | Dennis Sismaet | Affirmative | |
| 6 | Seminole Electric Cooperative, Inc. | Trudy S. Novak | Affirmative | |
| 6 | South Carolina Electric & Gas Co. | Matt H Bullard | Affirmative | |
| 6 | Southern California Edison Co. | Marcus V Lotto | Affirmative | |
| 6 | Western Area Power Administration - UGP Marketing | John Stonebarger | Affirmative | |
| 6 | Xcel Energy, Inc. | David F. Lemmons | Affirmative | |
| 8 | | James A Maenner | Affirmative | |
| 8 | | Roger C Zaklukiewicz | Affirmative | |
| 8 | JDRJC Associates | Jim D. Cyrulewski | Affirmative | |
| 8 | Power Energy Group LLC | Peggy Abbadini | Affirmative | |
| 8 | Volkman Consulting, Inc. | Terry Volkman | Affirmative | |
| 9 | California Energy Commission | William Mitchell Chamberlain | Affirmative | |
| 9 | Commonwealth of Massachusetts Department of Public Utilities | Donald E. Nelson | Affirmative | |
| 9 | Maine Public Utilities Commission | Jacob A McDermott | Abstain | |
| 9 | Oregon Public Utility Commission | Jerome Murray | Affirmative | |
| 10 | Electric Reliability Council of Texas, Inc. | Kent Saathoff | Affirmative | |
| 10 | Florida Reliability Coordinating Council | Linda Campbell | Abstain | |
| 10 | Midwest Reliability Organization | Dan R. Schoenecker | Affirmative | |
| 10 | New York State Reliability Council | Alan Adamson | Affirmative | |
| 10 | Northeast Power Coordinating Council, Inc. | Guy V. Zito | Affirmative | |
| 10 | ReliabilityFirst Corporation | Jacque Smith | | |
| 10 | SERC Reliability Corporation | Carter B Edge | | |



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Washington Office: 1120 G Street, N.W. : Suite 990 : Washington, DC 20005-3801

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Exhibit D

Roster of the Interpretation Development Team

| | | |
|-------------------------|-------------------------|----------------------|
| Jim Case — Entergy | Paul Bleuss — CAISO | Al DiCaprio — PJM |
| Jason Marshall — MISO | Gregory Vanpelt — CAISO | Steven Myers — ERCOT |
| Al McMeekin, NERC staff | | |