

May 13, 2009

VIA ELECTRONIC FILING

David Erickson Interim 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 interpretation of Requirement R11 in NERC Reliability Standard TOP-002-2 — Normal Operations Planning, that is designated as TOP-002-2a and set forth in **Exhibit A** to this petition. The formal interpretation was approved by the NERC Board of Trustees on February 10, 2009.

NERC's notice consists of the following:

- This transmittal letter;
- A table of contents for the filing;
- A narrative description explaining how the formal interpretation meets the reliability goal of the standard involved;
- Formal interpretations submitted for approval (**Exhibit A**);
- Reliability Standard TOP-002-2a that includes the appended formal interpretation (**Exhibit B**); and
- The complete development record of the formal interpretation (**Exhibit C**).

Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Rebecca J. Michael

Rebecca J. Michael

Assistant General Counsel 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 FORMAL INTERPRETATION TO RELIABILITY STANDARD TOP-002-2 – NORMAL OPERATIONS PLANNING

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I. <u>INTRODUCTION</u>

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

TOP-002-2 — Normal Operations Planning, Requirement R11
 No modifications to the language contained in this specific requirement are being proposed through the interpretation.

The NERC Board of Trustees approved the formal interpretation to TOP-002-2 — Normal Operations Planning, Requirement R11 on February 10, 2009. **Exhibit A** to this filing sets forth the formal interpretation. **Exhibit B** contains the affected Reliability Standard containing the appended interpretation. **Exhibit C** contains the complete development record of the formal interpretation to the Reliability Standard requirement.

NERC filed this formal interpretation with the Federal Energy Regulatory

Commission ("FERC") on March 5, 2009, and is filing this formal 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. <u>BACKGROUND</u>

a. 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 Rules of Procedure as Appendix 3A. Upon request, NERC will assemble a team with the relevant expertise to address the interpretation request and, within 45 days, present a formal interpretation 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 the applicable governmental authorities to be made effective when approved. When the affected Reliability Standard is next revised using the Reliability Standards Development Process, the interpretation will then be incorporated into the Reliability Standard.

The formal 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 February 10, 2009.

IV. TOP-002-2 — Normal Operations Planning, Requirement R11

In this filing, NERC is submitting a proposed interpretation to Requirement R11, which is labeled as TOP-002.2a and is included in **Exhibit B**. In Section IV(a) below, NERC discusses the interpretation, explains the need for, and discusses the development of, the formal interpretation to Requirement R11 of TOP-002-2 — Normal Operations

¹ See NERC's Reliability Standards Development Procedure, Approved by the NERC Board of Trustees on March 12, 2007, and Effective June 7, 2007 ("Reliability Standards Development Procedure"), available at http://www.nerc.com/files/Appendix3A Standards Development Process.pdf.

Planning. In this discussion, NERC demonstrates that the formal interpretation is consistent with the stated reliability goal of the Reliability Standards and the requirements thereunder. Set forth immediately below in Section IV(b) are the stakeholder ballot results and an explanation of how stakeholder comments were considered and addressed by the standard drafting team assembled to provide the interpretation.

The complete development record for the formal interpretation is set forth in **Exhibit C**. **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.

a. Justification of Formal Interpretation

The stated purpose of TOP-002-2 — Normal Operations Planning is as follows: "[c]urrent operations plans and procedures are essential to being prepared for reliable operations, including response for unplanned events." Requirement R11 of this Reliability Standard addresses the need to perform seasonal, next-day and current-day Bulk Electric System studies to determine System Operating Limits ("SOLs"). The specific language of this requirement is:

R11. The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject confidentiality requirements), and to its Reliability Coordinator.

On August 27, 2008, the Orlando Utilities Commission ("OUC") requested that NERC provide a formal interpretation of TOP-002-2 — Normal Operations Planning: Requirement R11. Specifically, OUC asked three questions:

- 1. Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?
- 2. Are there specific actions required to implement a "study"? In other words, what constitutes a study?
- 3. Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

In supporting its request, OUC cited that the "uncertainty in the definitions of these terms and inconsistency in their application can result in either too little or unnecessary study work being performed. Unnecessary, redundant work with no benefit to reliability performed for the purpose of meeting an overly literal interpretation of the requirement will result in higher operating costs to the end users of the transmission system and the loss of opportunities to use those resources for more important reliability-related tasks. Clarification of these two terms (Study & SOL) will aide in focusing the proper resources on the proper work, maximizing both the reliability of the system and the investment of the end user."

NERC assigned its Real-time Operations Standard Drafting Team ("RTOSDT") to provide the requested interpretation. As to the first question, the drafting team stated that Requirement R11 mandates that each Transmission Operator review the state of its Transmission Operator area both in advance of each day and during each day. Moreover, each day must have "a study" that can be applied to it, but it is not necessary to generate a "unique" study for each day. Regarding the second question, the drafting team stated that

the requirement does not mandate a particular type of review or study. Rather, it may be based on complex computer studies or a manual reasonability review of previously existing study results. As for the last question, the drafting team responded that the requirement is meant to include both determining new limits and identifying potential "exceedances" of pre-defined SOLs. If system conditions indicate to the Transmission Operator that prior studies and SOLs may be outdated, then the Transmission Operator must conduct a study to identify SOLs for the new conditions.

NERC believes that the interpretation as presented directly supports the reliability purpose of the standard, that is, it provides that operations plans and procedures must prepare for reliable operations, including a response for unplanned events. This interpretation provides clarity and certainty to OUC as it implements its protocols in support of this important reliability objective.

b. Summary of the Reliability Standard Development Proceedings

On August 27, 2008, OUC requested a formal interpretation of Requirement R11 of TOP-002-2. In accordance with its *Reliability Standard Development Procedure*, NERC posted its response to the request for interpretation for a 30-day pre-ballot period that took place from September 18, 2008 – October 17, 2008. NERC conducted an initial ballot from October 21, 2008 – October 30, 2008. There was an 83.33% quorum with a 96.94% weighted segment vote. Eight negative votes were received with seven associated comments. This triggered the need to conduct a recirculation ballot after the interpretation team responded to the comments. Accordingly, a recirculation ballot was conducted from December 10, 2008 – December 19, 2008. The formal interpretation was

approved by the ballot pool with a weighted segment average of 97.47%, with 87.62% of the ballot pool voting.

In the comments received, several stakeholders questioned if the interpretation added to existing requirements with respect to identifying the SOL violations. The drafting team stated that no new requirements were intended and that the intent of the interpretation was to clarify the meaning of the term "studies" in Requirement R11 and what should be done regarding SOLs when system conditions change.

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Respectfully submitted,

Exhibit A

$Formal\ interpretation\ submitted$

TOP-002-2 — Normal Operations Planning, Requirement R11



Request for an Interpretation of a Reliability Standard

Date submitted: 08/27/08

Contact information for person requesting the interpretation:

Name: Richard Kinas

Organization: Orlando Utilities Comission

Telephone: 407-384-4063

E-mail: <u>rkinas@ouc.com</u>

Identify the standard that needs clarification:

Standard Number: TOP-002-2 Normal Operations Planning

Identify specifically what needs clarification:

Requirement Number and Text of Requirement:

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System <u>studies</u> to determine <u>SOLs</u>. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

- 1. Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?
- 2. Are there specific actions required to implement a "study"? In other words, what constitutes a study?
- 3. Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

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.

The uncertainty in the definitions of these terms and inconsistency in their application can

result in either to little or unnecessary study work being performed. Unnecessary, redundant work with no benefit to reliability performed for the purpose of meeting an overly literal interpretation of the requirement will result in higher operating costs to the end users of the transmission system and the loss of opportunities to use those resources for more important reliability-related tasks. Clarification of these two terms (Study & SOL) will aide in focusing the proper resources on the proper work, maximizing both the reliability of the system and the investment of the end user.

Project 2008-13: Response to Request for an Interpretation of TOP-002-2, Requirement R11 for Orlando Utilities Commission

The following interpretation of TOP-002-2 – Normal Operations Planning, Requirement R11 was developed by a subset of the Real-time Operations Standards Drafting Team on September 15, 2008.

Requirement Number and Text of Requirement

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

Question #1

Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?

Response to Question #1

Requirement R11 mandates that each Transmission Operator review (i.e., study) the state of its Transmission Operator area both in advance of each day and during each day. Each day must have "a" study that can be applied to it, but it is not necessary to generate a "unique" study for each day. Therefore, it is acceptable for a Transmission Operator to use a particular study for more than one day.

Question #2

Are there specific actions required to implement a "study"? In other words, what constitutes a study?

Response to Question #2

The requirement does not mandate a particular type of review or study. The review or study may be based on complex computer studies or a manual reasonability review of previously existing study results. The requirement is designed to ensure the Transmission Operator maintains sensitivity to what is happening or what is about to happen.

Question #3

Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

Response to Question #3

TOP-002-2 covers real-time and near-real-time studies. Requirement R11 is meant to include

both determining new limits and identifying potential "exceedances" of pre-defined SOLs. If system conditions indicate to the Transmission Operator that prior studies and SOLs may be outdated, TOP-002-2 mandates the Transmission Operator to conduct a study to identify SOLs for the new conditions. If the Transmission Operator determines that system conditions do not warrant a new study, the primary purpose of the review is to check that the previously defined (i.e., defined from the current SOLs in use, or the set defined by the planners) SOLs are not expected to be exceeded. As written, the standard provides the Transmission Operator discretion regarding when to look for new SOLs and when to rely on its current set of SOLs.

Exhibit B

Affected Reliability Standard that includes the appended interpretation

TOP-002-2a — Normal Operations Planning

A. Introduction

1. Title: Normal Operations Planning

2. Number: TOP-002-2a

3. Purpose: Current operations plans and procedures are essential to being prepared for reliable operations, including response for unplanned events.

4. Applicability

- **4.1.** Balancing Authority.
- **4.2.** Transmission Operator.
- **4.3.** Generator Operator.
- **4.4.** Load Serving Entity.
- **4.5.** Transmission Service Provider.

5. Effective Date: Immediately after approval of applicable regulatory authorities.

B. Requirements

- **R1.** Each Balancing Authority and Transmission Operator shall maintain a set of current plans that are designed to evaluate options and set procedures for reliable operation through a reasonable future time period. In addition, each Balancing Authority and Transmission Operator shall be responsible for using available personnel and system equipment to implement these plans to ensure that interconnected system reliability will be maintained.
- **R2.** Each Balancing Authority and Transmission Operator shall ensure its operating personnel participate in the system planning and design study processes, so that these studies contain the operating personnel perspective and system operating personnel are aware of the planning purpose.
- **R3.** Each Load Serving Entity and Generator Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal operations with its Host Balancing Authority and Transmission Service Provider. Each Balancing Authority and Transmission Service Provider shall coordinate its current-day, next-day, and seasonal operations with its Transmission Operator.
- **R4.** Each Balancing Authority and Transmission Operator shall coordinate (where confidentiality agreements allow) its current-day, next-day, and seasonal planning and operations with neighboring Balancing Authorities and Transmission Operators and with its Reliability Coordinator, so that normal Interconnection operation will proceed in an orderly and consistent manner.
- **R5.** Each Balancing Authority and Transmission Operator shall plan to meet scheduled system configuration, generation dispatch, interchange scheduling and demand patterns.
- **R6.** Each Balancing Authority and Transmission Operator shall plan to meet unscheduled changes in system configuration and generation dispatch (at a minimum N-1 Contingency planning) in accordance with NERC, Regional Reliability Organization, subregional, and local reliability requirements.
- **R7.** Each Balancing Authority shall plan to meet capacity and energy reserve requirements, including the deliverability/capability for any single Contingency.
- **R8.** Each Balancing Authority shall plan to meet voltage and/or reactive limits, including the deliverability/capability for any single contingency.

- **R9.** Each Balancing Authority shall plan to meet Interchange Schedules and ramps.
- **R10.** Each Balancing Authority and Transmission Operator shall plan to meet all System Operating Limits (SOLs) and Interconnection Reliability Operating Limits (IROLs).
- R11. The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.
- **R12.** The Transmission Service Provider shall include known SOLs or IROLs within its area and neighboring areas in the determination of transfer capabilities, in accordance with filed tariffs and/or regional Total Transfer Capability and Available Transfer Capability calculation processes.
- **R13.** At the request of the Balancing Authority or Transmission Operator, a Generator Operator shall perform generating real and reactive capability verification that shall include, among other variables, weather, ambient air and water conditions, and fuel quality and quantity, and provide the results to the Balancing Authority or Transmission Operator operating personnel as requested.
- **R14.** Generator Operators shall, without any intentional time delay, notify their Balancing Authority and Transmission Operator of changes in capabilities and characteristics including but not limited to:
 - R14.1. Changes in real and reactive output capabilities. (Retired August 1, 2007)
 - **R14.1.** Changes in real output capabilities. (Effective August 1, 2007)
 - R14.2. Automatic Voltage Regulator status and mode setting. (Retired August 1, 2007)
- **R15.** Generation Operators shall, at the request of the Balancing Authority or Transmission Operator, provide a forecast of expected real power output to assist in operations planning (e.g., a seven-day forecast of real output).
- **R16.** Subject to standards of conduct and confidentiality agreements, Transmission Operators shall, without any intentional time delay, notify their Reliability Coordinator and Balancing Authority of changes in capabilities and characteristics including but not limited to:
 - **R16.1.** Changes in transmission facility status.
 - **R16.2.** Changes in transmission facility rating.
- **R17.** Balancing Authorities and Transmission Operators shall, without any intentional time delay, communicate the information described in the requirements R1 to R16 above to their Reliability Coordinator.
- **R18.** Neighboring Balancing Authorities, Transmission Operators, Generator Operators, Transmission Service Providers and Load Serving Entities shall use uniform line identifiers when referring to transmission facilities of an interconnected network.
- **R19.** Each Balancing Authority and Transmission Operator shall maintain accurate computer models utilized for analyzing and planning system operations.

C. Measures

M1. Each Balancing Authority and Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, documented planning procedures, copies of

- current day plans, copies of seasonal operations plans, or other equivalent evidence that will be used to confirm that it maintained a set of current plans. (Requirement 1 Part 1).
- **M2.** Each Balancing Authority and Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, copies of current day plans or other equivalent evidence that will be used to confirm that its plans address Requirements 5, 6, and 10.
- **M3.** Each Balancing Authority shall have and provide upon request evidence that could include, but is not limited to, copies of current day plans or other equivalent evidence that will be used to confirm that its plans address Requirements 7, 8, and 9.
- **M4.** Each Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, its next-day, and current-day Bulk Electric System studies used to determine SOLs or other equivalent evidence that will be used to confirm that its studies reflect current system conditions. (Requirement 11 Part 1)
- **M5.** Each Transmission Operator shall have and provide upon request evidence that could include, but is not limited to, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that the results of Bulk Electric System studies were made available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator. (Requirement 11 Part 2)
- **M6.** Each Generator Operator shall have and provide upon request evidence that, when requested by either a Transmission Operator or Balancing Authority, it performed a generating real and reactive capability verification and provided the results to the requesting entity in accordance with Requirement 13.
- M7. Each Generator Operator shall have and provide upon request evidence that could include, but is not limited to, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that without any intentional time delay, it notified its Balancing Authority and Transmission Operator of changes in real and reactive capabilities and AVR status. (Requirement 14)
- **M8.** Each Generator Operator shall have and provide upon request evidence that could include, but is not limited to, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that, on request, it provided a forecast of expected real power output to assist in operations planning. (Requirement 15)
- **M9.** Each Transmission Operators shall have and provide upon request evidence that could include, but is not limited to, voice recordings or transcripts of voice recordings, electronic communications, or other equivalent evidence that will be used to confirm that, without any intentional time delay, it notified its Balancing Authority and Reliability Coordinator of changes in capabilities and characteristics. (Requirement16)
- M10. Each Balancing Authority, Transmission Operator, Generator Operator, Transmission Service Provider and Load Serving Entity shall have and provide upon request evidence that could include, but is not limited to, a list of interconnected transmission facilities and their line identifiers at each end or other equivalent evidence that will be used to confirm that it used uniform line identifiers when referring to transmission facilities of an interconnected network. (Requirement 18)

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 calendar 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

For Measures 1 and 2, each Transmission Operator shall have its current plans and a rolling 6 months of historical records (evidence).

For Measures 1, 2, and 3 each Balancing Authority shall have its current plans and a rolling 6 months of historical records (evidence).

For Measure 4, each Transmission Operator shall keep its current plans (evidence).

For Measures 5 and 9, each Transmission Operator shall keep 90 days of historical data (evidence).

For Measures 6, 7 and 8, each Generator Operator shall keep 90 days of historical data (evidence).

For Measure 10, each Balancing Authority, Transmission Operator, Generator Operator, Transmission Service Provider, and Load-serving Entity shall have its current list interconnected transmission facilities and their line identifiers at each end or other equivalent evidence as evidence.

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 Balancing Authorities:

- **2.1.** Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.
- 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 maintain an updated set of current-day plans as specified in R1.
 - **2.4.2** Plans did not meet one or more of the requirements specified in R5 through R10.

3. Levels of Non-Compliance for Transmission Operators

- **3.1.** Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.
- **3.2.** Level 2: Not applicable.
- **3.3.** Level 3: One or more of Bulk Electric System studies were not made available as specified in R11.
- **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** Did not maintain an updated set of current-day plans as specified in R1.
 - **3.4.2** Plans did not meet one or more of the requirements in R5, R6, and R10.
 - **3.4.3** Studies not updated to reflect current system conditions as specified in R11.
 - **3.4.4** Did not notify its Balancing Authority and Reliability Coordinator of changes in capabilities and characteristics as specified in R16.

4. Levels of Non-Compliance for Generator Operators:

- **4.1.** Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.
- **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 verify and provide a generating real and reactive capability verification and provide the results to the requesting entity as specified in R13.
 - **4.4.2** Did not notify its Balancing Authority and Transmission Operator of changes in capabilities and characteristics as specified in R14.
 - **4.4.3** Did not provide a forecast of expected real power output to assist in operations planning as specified in R15.

5. Levels of Non-Compliance for Transmission Service Providers and Load-serving Entities:

- **5.1.** Level 1: Did not use uniform line identifiers when referring to transmission facilities of an interconnected network as specified in R18.
- **5.2.** Level 2: Not applicable.

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5.3. Level 3: Not applicable.

5.4. Level 4: Not applicable.

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 |
| 2 | June 14, 2007 | Fixed typo in R11., (subject to) | Errata |
| 2a | March 3, 2009 | Added Appendix 1 – Interpretation of R11 approved by BOT on February 10, 2009 | Revised |

Appendix 1

Interpretation of Requirement R11

Requirement Number and Text of Requirement

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

Ouestion #1

Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?

Response to Question #1

Requirement R11 mandates that each Transmission Operator review (i.e., study) the state of its Transmission Operator area both in advance of each day and during each day. Each day must have "a" study that can be applied to it, but it is not necessary to generate a "unique" study for each day. Therefore, it is acceptable for a Transmission Operator to use a particular study for more than one day.

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Are there specific actions required to implement a "study"? In other words, what constitutes a study?

Response to Question #2

The requirement does not mandate a particular type of review or study. The review or study may be based on complex computer studies or a manual reasonability review of previously existing study results. The requirement is designed to ensure the Transmission Operator maintains sensitivity to what is happening or what is about to happen.

Ouestion #3

Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

Response to Question #3

TOP-002-2 covers real-time and near-real-time studies. Requirement R11 is meant to include both determining new limits and identifying potential "exceedances" of pre-defined SOLs. If system conditions indicate to the Transmission Operator that prior studies and SOLs may be outdated, TOP-002-2 mandates the Transmission Operator to conduct a study to identify SOLs for the new conditions. If the Transmission Operator determines that system conditions do not warrant a new study, the primary purpose of the review is to check that the previously defined (i.e., defined from the current SOLs in use, or the set defined by the planners) SOLs are not expected to be exceeded. As written, the standard provides the Transmission Operator discretion regarding when to look for new SOLs and when to rely on its current set of SOLs.

Exhibit C

The complete development record of the formal interpretation $% \left(\mathbf{r}\right) =\left(\mathbf{r}\right)$

TOP-002-2 — Normal Operations Planning, Requirement R11



Project 2008-13

Interpretation - TOP-002-2 - Normal Operations Planning Registered Ballot Body | Drafting Team Rosters | Related Files

Status

The Standards Committee has posted the results from the 10-day recirculation ballot window for the request for interpretation from Orlando Utilities Commission for TOP-002-2.

The request asks:

- 1. Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?
- 2. Are there specific actions required to implement a "study"? In other words, what constitutes a study?
- 3. Does the term, "to determine SOLs" as used in the first sentence of Requirement 11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations"?

Purpose/Industry Need

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.

| Proposed Standard | Supporting Documents | Comment Period | Comments Received | Response to Comments |
|---|--|--|-----------------------|--|
| Announcement (9) Interpretation (10) TOP-002-2a Normal Operations Planning | Orlando Utilities Commission Request for Interpretation | 12/10/08 - 12/19/08 (closed) 10-day | | Announcement (12) Ballot Results (13) |
| Posted for 10-day Recirculation Ballot Window | (11) TOP-002-2a | Recirculation Ballot | | |
| Announcement (4) | Orlando Utilities | 10/21/08 – 10/30/08 | Ballot (7) Results | |



| Interpretation (5) | Commission | (closed) | Response to Comments |
|---|---|------------------|----------------------|
| TOP-002-2a Normal Operations Planning Posted for 10-day Ballot Window | Request for Interpretation (6) TOP-002-2a | Ballot Window | (8) |
| Announcement (1) | Oulanda | | |
| Announcement (1) | Orlando Utilities | | |
| Interpretation (2) | Commission | 09/18/08 – | |
| | | 10/17/08 | |
| TOP-002-2a | Request for | (closed) | |
| Normal Operations Planning | (3) | Join Dollat Dool | |
| Posted for 30-day Pre-ballot Review | Interpretation | Join Ballot Pool | |
| | TOP-002-2a | | |

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Standards Announcement

Ballot Pool and Pre-ballot Window Open September 18–October 17, 2008

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

Interpretation of TOP-002-2 Requirement R11 (Project 2008-13)

A ballot pool and pre-ballot window for the interpretation of TOP-002-2 – Normal Operations Planning, Requirement R11 (requested by the Orlando Utilities Commission) is now open until **8:00 p.m. EDT on October 17, 2008**.

Orlando Utilities Commission asked for clarification regarding the studies of system operating limits (SOLs) required in Requirement R11. A subset of the Real-time Operations Standard Drafting Team drafted a response to address the questions. A summary of the questions is listed below:

- 1. Can studies be reused?
- 2. What constitutes a study?
- 3. Does the phrase "to determine SOLs" include the identification of potential SOL violations?

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

http://www.nerc.com/filez/standards/Project2008-13_TOP-002_Interpretation_OUC.html

During the pre-ballot window, members of the ballot pool may communicate with one another by using their "ballot pool list server." The list server for this ballot pool is: <u>bp-RFI TOP-002 OUC in@nerc.com</u>. Once the balloting begins, ballot pool members are prohibited from using the ballot pool list servers.

Standards Development Process

The <u>Reliability Standards Development Procedure</u> 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 <u>shaun.streeter@nerc.net</u> or at 609.452.8060.

North American Electric Reliability Corporation 116-390 Village Blvd. Princeton, NJ 08540 609.452.8060 | www.nerc.com



Request for an Interpretation of a Reliability Standard

Date submitted: 08/27/08

Contact information for person requesting the interpretation:

Name: Richard Kinas

Organization: Orlando Utilities Comission

Telephone: 407-384-4063

E-mail: <u>rkinas@ouc.com</u>

Identify the standard that needs clarification:

Standard Number: TOP-002-2 Normal Operations Planning

Identify specifically what needs clarification:

Requirement Number and Text of Requirement:

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System <u>studies</u> to determine <u>SOLs</u>. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

- 1. Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?
- 2. Are there specific actions required to implement a "study"? In other words, what constitutes a study?
- 3. Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

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.

The uncertainty in the definitions of these terms and inconsistency in their application can

result in either to little or unnecessary study work being performed. Unnecessary, redundant work with no benefit to reliability performed for the purpose of meeting an overly literal interpretation of the requirement will result in higher operating costs to the end users of the transmission system and the loss of opportunities to use those resources for more important reliability-related tasks. Clarification of these two terms (Study & SOL) will aide in focusing the proper resources on the proper work, maximizing both the reliability of the system and the investment of the end user.

Project 2008-13: Response to Request for an Interpretation of TOP-002-2, Requirement R11 for Orlando Utilities Commission

The following interpretation of TOP-002-2 – Normal Operations Planning, Requirement R11 was developed by a subset of the Real-time Operations Standards Drafting Team on September 15, 2008.

Requirement Number and Text of Requirement

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

Question #1

Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?

Response to Question #1

Requirement R11 mandates that each Transmission Operator review (i.e., study) the state of its Transmission Operator area both in advance of each day and during each day. Each day must have "a" study that can be applied to it, but it is not necessary to generate a "unique" study for each day. Therefore, it is acceptable for a Transmission Operator to use a particular study for more than one day.

Question #2

Are there specific actions required to implement a "study"? In other words, what constitutes a study?

Response to Question #2

The requirement does not mandate a particular type of review or study. The review or study may be based on complex computer studies or a manual reasonability review of previously existing study results. The requirement is designed to ensure the Transmission Operator maintains sensitivity to what is happening or what is about to happen.

Question #3

Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

Response to Question #3

TOP-002-2 covers real-time and near-real-time studies. Requirement R11 is meant to include

both determining new limits and identifying potential "exceedances" of pre-defined SOLs. If system conditions indicate to the Transmission Operator that prior studies and SOLs may be outdated, TOP-002-2 mandates the Transmission Operator to conduct a study to identify SOLs for the new conditions. If the Transmission Operator determines that system conditions do not warrant a new study, the primary purpose of the review is to check that the previously defined (i.e., defined from the current SOLs in use, or the set defined by the planners) SOLs are not expected to be exceeded. As written, the standard provides the Transmission Operator discretion regarding when to look for new SOLs and when to rely on its current set of SOLs.

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Standards Announcement

Initial Ballot Window October 21–30, 2008

Will be available at: https://standards.nerc.net/CurrentBallots.aspx

Initial Ballot for Interpretation of TOP-002-2 Requirement R11 (Project 2008-13)

An initial ballot window for the interpretation of TOP-002-2 — Normal Operations Planning, Requirement R11 (requested by the Orlando Utilities Commission) will **open 8 a.m. EDT on October 21, 2008** and run **until 8 p.m. EDT on October 30, 2008**.

Orlando Utilities Commission asked for clarification regarding the studies of system operating limits (SOLs) required in Requirement R11. A subset of the Real-time Operations Standard Drafting Team drafted a response to address the questions. A summary of the questions is listed below:

- 1. Can studies be reused?
- 2. What constitutes a study?
- 3. Does the phrase "to determine SOLs" include the identification of potential SOL violations?

The request and interpretation can be found on the following page: http://www.nerc.com/filez/standards/Project2008-13 TOP-002 Interpretation OUC.html

Standards Development Process

The <u>Reliability Standards Development Procedure</u> 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, Standards Program Administrator, at <u>shaun.streeter@nerc.net</u> or at 609.452.8060

> North American Electric Reliability Corporation 116-390 Village Blvd. Princeton, NJ 08540 609.452.8060 | www.nerc.com



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Project 2008-13: Response to Request for an Interpretation of TOP-002-2, Requirement R11 for Orlando Utilities Commission

The following interpretation of TOP-002-2 – Normal Operations Planning, Requirement R11 was developed by a subset of the Real-time Operations Standards Drafting Team on September 15, 2008.

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User Name

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

Home Page

| | Ballot Results |
|---------------------------|--|
| Ballot Name: | Request for Interpretation - TOP-002-2 - Orlando Utilities Commission_in |
| Ballot Period: | 10/21/2008 - 10/30/2008 |
| Ballot Type: | Initial |
| Total # Votes: | 175 |
| Total Ballot Pool: | 210 |
| Quorum: | 83.33 % The Quorum has been reached |
| Weighted Segment Vote: | 96.94 % |
| Ballot Results: | The standard will proceed to recirculation ballot. |

| | | | S | ummary of | Ballot Resu | lts | | | |
|------------------|----------------|----|------------------|------------|-------------|--------------|---------|---------|---------------|
| | | | | Affirr | native | Nega | tive | Abstain | |
| Segment | Ballot Pool | | egment Neight | # Votes | Fraction | # Votes I | raction | # Votes | No Vote |
| | T | | | | | | | | $\overline{}$ |
| 1 - Segment 1. | | 63 | 1 | 47 | 0.922 | 4 | 0.07 | 8 2 | 10 |
| 2 - Segment 2. | | 8 | 0.8 | 8 | 0.8 | C | | 0 0 | 0 |
| 3 - Segment 3. | | 51 | 1 | 39 | 0.951 | 2 | 0.04 | 9 1 | 9 |
| 4 - Segment 4. | | 12 | 0.9 | 9 | 0.9 | C | | 0 0 | 3 |
| 5 - Segment 5. | | 37 | 1 | 26 | 0.963 | 1 | 0.03 | 7 3 | 7 |
| 6 - Segment 6. | | 24 | 1 | 18 | 0.947 | 1 | 0.05 | 3 0 | 5 |
| 7 - Segment 7. | | 0 | 0 | 0 | 0 | C | | 0 0 | 0 |
| 8 - Segment 8. | | 2 | 0.2 | 2 | 0.2 | C | | 0 0 | 0 |
| 9 - Segment 9. | | 6 | 0.5 | 5 | 0.5 | C | | 0 0 | 1 |
| 10 - Segment 10. | | 7 | 0.7 | 7 | 0.7 | C | | 0 0 | 0 |
| Totals | 2 | 10 | 7.1 | 161 | 6.883 | 8 | 0.21 | 7 6 | 35 |

| | Individual E | Ballot Pool Results | | | |
|-------|---------------------------------------|---------------------|----|-------------|----------|
| Segme | nt Organization | Member | Ва | llot | Comments |
| | | | | | |
| 1 | Ameren Services | Kirit S. Shah | | Affirmative | : |
| 1 | American Electric Power | Paul B. Johnson | | Affirmative | : |
| 1 | American Transmission Company, LLC | Jason Shaver | | Abstain | View |
| 1 | Arizona Public Service Co. | Cary B. Deise | | Affirmative | : |
| 1 | Associated Electric Cooperative, Inc. | John Bussman | | Affirmative | : |
| 1 | Avista Corp. | Scott Kinney | | | |
| 1 | Bonneville Power Administration | Donald S. Watkins | | Negative | View |

| 1 | Brazos Electric Power Cooperative, Inc. CenterPoint Energy | Tony Kroskey Paul Rocha | Affirmative Affirmative | |
|-----------------------|---|--|-------------------------------------|------|
| 1 | Central Maine Power Company | Brian Conroy | Affirmative | |
| | City of Tacoma, Department of Public | 1 | 7 | |
| 1 | Utilities, Light Division, dba Tacoma Power | Alan L Cooke | Affirmative | |
| 1 | City Utilities of Springfield, Missouri | Jeff Knottek | Affirmative | |
| 1 | Consolidated Edison Co. of New York | Christopher L de Graffenried | Affirmative | |
| 1 | Dairyland Power Coop. | Robert W. Roddy | 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 Dennis Malone | Affirmative | |
| 1 | El Paso Electric Company Entergy Corporation | George R. Bartlett | Affirmative | |
| 1 | Exelon Energy | John J. Blazekovich | Affirmative | |
| <u> </u> | Farmington Electric Utility System | Alan Glazner | Affirmative | |
| 1 | FirstEnergy Energy Delivery | Robert Martinko | Affirmative | |
| 1 | Florida Keys Electric Cooperative Assoc. | Dennis Minton | Negative | |
| 1 | Florida Power & Light Co. | C. Martin Mennes | Affirmative | |
| 1 | Great River Energy | Gordon Pietsch | | |
| 1 | Hoosier Energy Rural Electric Cooperative, | Damon Holladay | Affirmative | |
| 1 | Hydro One Networks, Inc. | Ajay Garg | Affirmative | |
| 1 | Hydro-Quebec TransEnergie | Julien Gagnon | Affirmative | |
| 1 | Idaho Power Company | Ronald D. Schellberg | | |
| 1 | Kansas City Power & Light Co. | Jim Useldinger | | |
| 1 | Lakeland Electric | Larry E Watt | Affirmative | |
| 1 | Lincoln Electric System | Doug Bantam | Affirmative | |
| 1 | Lower Colorado River Authority | Martyn Turner | Affirmative | |
| 1 | Manitoba Hydro | Michelle Rheault | Affirmative | View |
| 1 | Minnesota Power, Inc. | Carol Gerou | | |
| 1 | National Grid | Michael J Ranalli | Negative | View |
| 1 | New York Power Authority | Ralph Rufrano | Affirmative | View |
| 1 | New York State Electric & Gas Corp. | Henry G. Masti | Affirmative | 10 |
| 1 | Northeast Utilities Northern Indiana Public Service Co. | David H. Boguslawski Joseph Dobes | Negative Affirmative | View |
| 1 | Oklahoma Gas and Electric Co. | Marvin E VanBebber | Abstain | |
| 1 | Orlando Utilities Commission | Brad Chase | Affirmative | |
| 1 | Otter Tail Power Company | Lawrence R. Larson | Affirmative | |
| 1 | Pacific Gas and Electric Company | Chifong L. Thomas | Affirmative | |
| 1 | PacifiCorp | Robert Williams | Affirmative | |
| 1 | Platte River Power Authority | John C. Collins | Affirmative | |
| 1 | Potomac Electric Power Co. | Richard J. Kafka | Affirmative | |
| 1 | PP&L, Inc. | Ray Mammarella | | |
| 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 | Affirmative | |
| 1 | Sacramento Municipal Utility District | Dilip Mahendra | Affirmative | |
| 1 | Salt River Project | Robert Kondziolka | Affirmative | |
| 1 | Santee Cooper | Terry L. Blackwell | Affirmative | |
| 1 | SaskPower | Wayne Guttormson | A.CC | |
| 1 | Seattle City Light | Pawel Krupa | Affirmative | |
| 1 | Sierra Pacific Power Co. | Richard Salgo | Affirmative | |
| 1 | Southern Company Sorvices Inc. | Dana Cabbell | Affirma atti | |
| 1 | Southern Company Services, Inc. Southwest Transmission Cooperative, Inc. | Horace Stephen Williamson James L. Jones | Affirmative Affirmative | |
| 1 | Tampa Electric Co. | Thomas J. Szelistowski | Ammative | |
| 1 | Western Area Power Administration | Robert Temple | Affirmative | |
| 1 | Xcel Energy, Inc. | Gregory L. Pieper | Affirmative | |
| | Alberta Electric System Operator | Anita Lee | Affirmative | |
| 2 | · . | David Hawkins | Affirmative | |
| 2 | California ISO | | | |
| 2 | California ISO Electric Reliability Council of Texas, Inc. | | Affirmative | |
| | Electric Reliability Council of Texas, Inc. | Roy D. McCoy Kathleen Goodman | Affirmative Affirmative | View |
| 2 | | Roy D. McCoy | | View |
| 2 2 2 | Electric Reliability Council of Texas, Inc. ISO New England, Inc. | Roy D. McCoy Kathleen Goodman | Affirmative | View |
| 2 2 2 2 | Electric Reliability Council of Texas, Inc. ISO New England, Inc. Midwest ISO, Inc. | Roy D. McCoy Kathleen Goodman Terry Bilke | Affirmative Affirmative | View |
| 2 2 2 2 2 | Electric Reliability Council of Texas, Inc. ISO New England, Inc. Midwest ISO, Inc. New Brunswick System Operator | Roy D. McCoy Kathleen Goodman Terry Bilke Alden Briggs | Affirmative Affirmative Affirmative | View |

| 3 | Ameren Services | Mark Peters | | |
|---|--|-------------------------|-------------------------|------|
| 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 | Avista Corp. | Robert Lafferty | Abstain | |
| 3 | BC Hydro and Power Authority | Pat G. Harrington | | |
| 3 | Bonneville Power Administration | Rebecca Berdahl | Negative | View |
| 3 | City of Tallahassee | Rusty S. Foster | Affirmative | |
| 3 | City Public Service of San Antonio | Edwin Les Barrow | Affirmative | |
| 3 | Commonwealth Edison Co. | Stephen Lesniak | Affirmative | |
| 3 | Consolidated Edison Co. of New York | Peter T Yost | Affirmative | |
| 3 | Consumers Energy | David A. Lapinski | Affirmative | |
| 3 | Delmarva Power & Light Co. | Michael R. Mayer | 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 | Joanne Kathleen Borrell | Affirmative | |
| 3 | Florida Power & Light Co. | W. R. Schoneck | Affirmative | |
| 3 | Florida Power Corporation | Lee Schuster | Affirmative | |
| 3 | Georgia Power Company | Leslie Sibert | Affirmative | |
| 3 | Grays Harbor PUD | Wesley W Gray | Affirmative | |
| 3 | Great River Energy | Sam Kokkinen | | |
| 3 | Gulf Power Company | Gwen S Frazier | Affirmative | |
| 3 | Hydro One Networks, Inc. | Michael D. Penstone | Affirmative | |
| 3 | Kissimmee Utility Authority | Gregory David Woessner | Affirmative | |
| 3 | Lakeland Electric | Mace Hunter | Affirmative | |
| 3 | Lincoln Electric System | Bruce Merrill | Affirmative | |
| 3 | Louisville Gas and Electric Co. | Charles A. Freibert | Affirmative | |
| 3 | Manitoba Hydro | Ronald Dacombe | Affirmative | View |
| 3 | MidAmerican Energy Co. | Thomas C. Mielnik | | |
| 3 | Mississippi Power | Don Horsley | Affirmative | |
| 3 | Municipal Electric Authority of Georgia | Steven M. Jackson | | |
| 3 | New York Power Authority | Michael Lupo | Affirmative | View |
| 3 | Niagara Mohawk (National Grid Company) | Michael Schiavone | Negative | View |
| 3 | Northern Indiana Public Service Co. | William SeDoris | Affirmative | |
| 3 | Orlando Utilities Commission | Ballard Keith Mutters | Affirmative | |
| 3 | PECO Energy an Exelon Co. | John J. McCawley | Affirmative | |
| 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 | Salt River Project | John T. Underhill | Affirmative | |
| 3 | San Diego Gas & Electric | Scott Peterson | | |
| 3 | Santee Cooper | Zack Dusenbury | Affirmative | |
| 3 | Seattle City Light | Dana Wheelock | Affirmative | |
| 3 | Tampa Electric Co. | Ronald L. Donahey | | |
| 3 | Wisconsin Electric Power Marketing | James R. Keller | Affirmative | |
| 3 | Wisconsin Public Service Corp. | James Maenner | Affirmative | |
| 3 | Xcel Energy, Inc. | Michael Ibold | | |
| 4 | Alliant Energy Corp. Services, Inc. | Kenneth Goldsmith | Affirmative | |
| 4 | Consumers Energy | David Frank Ronk | Affirmative | |
| 4 | Florida Municipal Power Agency | Thomas Reedy | Affirmative | |
| 4 | Madison Gas and Electric Co. | Joseph G. DePoorter | Affirmative | |
| 4 | Northern California Power Agency | Fred E. Young | Affirmative | |
| 4 | Ohio Edison Company | Douglas Hohlbaugh | Affirmative | |
| 4 | Old Dominion Electric Coop. | Mark Ringhausen | Amimative | |
| 4 | Public Utility District No. 1 of Douglas County | Henry E. LuBean | + | |
| 4 | | Hao Li | Affirmative | |
| 4 | Seattle City Light Seminole Electric Cooperative, Inc. | | | |
| | | Steven R. Wallace | Affirmative | |
| 4 | Wisconsin Energy Corp. | Anthony Jankowski | Affirmative | |
| 4 | Wisconsin Public Power Inc. | Pat Connors | A.C | |
| 5 | AEP Service Corp. | Brock Ondayko | Affirmative | |
| 5 | Amerenue | Sam Dwyer | Affirmative | |
| 5 | Avista Corp. | Edward F. Groce | Abstain | |
| 5 | Bonneville Power Administration | Francis J. Halpin | Negative Affirmative | View |
| 5 | City of Tallahassee | Alan Gale | | |

| 5 | City Water, Light & Power of Springfield Colmac Clarion/Piney Creek LP | Karl E. Kohlrus Harvie D. Beavers | Affirmative Affirmative | |
|---|---|---|-------------------------------------|------|
| 5 | Conectiv Energy Supply, Inc. | Richard K. Douglass | 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 | Entergy Corporation | Stanley M Jaskot | Affirmative | |
| 5 | Florida Power & Light Co. | Robert A. Birch | Ammund | |
| 5 | Gainesville Regional Utilities | Mark Bennett | Affirmative | |
| 5 | Great River Energy | Cynthia E Sulzer | Ammunuc | |
| 5 | JEA | Donald Gilbert | | |
| 5 | Lincoln Electric System | Dennis Florom | Affirmative | |
| 5 | Louisville Gas and Electric Co. | Charlie Martin | Affirmative | |
| 5 | Manitoba Hydro | Mark Aikens | Affirmative | View |
| 5 | New York Power Authority | Gerald Mannarino | Affirmative | View |
| 5 | Northern States Power Co. | Liam Noailles | Ammunuc | VICW |
| 5 | Orlando Utilities Commission | Richard Kinas | Affirmative | |
| 5 | PPL Generation LLC | Mark A. Heimbach | Affirmative | |
| 5 | Progress Energy Carolinas | | Affirmative | |
| | 3 33 | Wayne Lewis | Affirmative | |
| 5 | PSEG Power LLC | Thomas Piascik Thomas J. Bradish | Affirmative | |
| 5 | Reliant Energy Services | Glen Reeves | | |
| 5 | Salt River Project | | Affirmative | |
| 5 | Seattle City Light | Michael J. Haynes | Affirmative | |
| 5 | Seminole Electric Cooperative, Inc. | Brenda K. Atkins | | |
| 5 | South Mississippi Electric Power Association | Jerry W Johnson | A 55: | |
| 5 | Southern California Edison Co. | David Schiada | Affirmative | |
| 5 | Southern Company Services, Inc. | Roger D. Green | | |
| 5 | Tampa Electric Co. | Frank L Busot | Abstain | |
| 5 | U.S. Army Corps of Engineers Northwestern Division | Karl Bryan | Affirmative | |
| 5 | U.S. Bureau of Reclamation | Martin Bauer | Abstain | |
| 5 | Wisconsin Electric Power Co. | Linda Horn | Affirmative | |
| 6 | AEP Marketing | Edward P. Cox | Affirmative | |
| 6 | Ameren Energy Marketing Co. | Jennifer Richardson | Affirmative | |
| 6 | Bonneville Power Administration | Brenda S. Anderson | Negative | View |
| 6 | Consolidated Edison Co. of New York | Nickesha P Carrol | Affirmative | |
| 6 | Dominion Resources, Inc. | Louis S Slade | Affirmative | |
| 6 | Entergy Services, Inc. | William Franklin | Affirmative | |
| 6 | Eugene Water & Electric Board | Daniel Mark Bedbury | Affirmative | |
| 6 | FirstEnergy Solutions | Mark S Travaglianti | Affirmative | |
| 6 | Florida Municipal Power Agency | Robert C. Williams | | |
| 6 | Lincoln Electric System | Eric Ruskamp | Affirmative | |
| 6 | Louisville Gas and Electric Co. | Daryn Barker | Affirmative | |
| 6 | Manitoba Hydro | Daniel Prowse | Affirmative | View |
| 6 | New York Power Authority | Thomas Papadopoulos | Affirmative | |
| 6 | PP&L, Inc. | Thomas Hyzinski | | |
| 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 | Salt River Project | Mike Hummel | Affirmative | |
| 6 | Santee Cooper | Suzanne Ritter | Affirmative | |
| 6 | Seminole Electric Cooperative, Inc. | Trudy S. Novak | Affirmative | |
| 6 | Southern California Edison Co. | Marcus V Lotto | Affirmative | |
| 6 | Tampa Electric Co. | Jose Benjamin Quintas | | |
| 6 | Western Area Power Administration - UGP Marketing | John Stonebarger | Affirmative | |
| 6 | Xcel Energy, Inc. | David F. Lemmons | | |
| 8 | JDRJC Associates | Jim D. Cyrulewski | Affirmative | |
| 8 | Volkmann Consulting, Inc. | Terry Volkmann | Affirmative | |
| 9 | California Energy Commission | William Mitchell Chamberlain | Affirmative | |
| | | Donald E. Nelson | Affirmative | |
| 9 | Commonwealth of Massachusetts Department | | | |
| | of Public Utilities National Association of Regulatory Utility | Diane J. Barney | Affirmative | |
| 9 | of Public Utilities National Association of Regulatory Utility Commissioners | | | Viou |
| 9 | of Public Utilities National Association of Regulatory Utility | Diane J. Barney Jerome Murray Klaus Lambeck | Affirmative Affirmative Affirmative | View |



| 10 | Electric Reliability Council of Texas, Inc. | Kent Saathoff | Affirmative | |
|----|---|------------------|-------------|------|
| 10 | Midwest Reliability Organization | Larry Brusseau | Affirmative | |
| 10 | New York State Reliability Council | Alan Adamson | Affirmative | |
| 10 | Northeast Power Coordinating Council, Inc. | Guy Zito | Affirmative | View |
| 10 | SERC Reliability Corporation | Carter B. Edge | Affirmative | |
| 10 | Southwest Power Pool | Charles H. Yeung | Affirmative | |
| 10 | Western Electricity Coordinating Council | Louise McCarren | Affirmative | |
| | | | | |

Legal and Privacy : 609.452.8060 voice : 609.452.9550 fax : 116-390 Village Boulevard : Princeton, NJ 08540-5721 Washington Office: 1120 G Street, N.W. : Suite 990 : Washington, DC 20005-3801

Account Log-In/Register

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A New Jersey Nonprofit Corporation



Summary Consideration:

The intent of the interpretation is to clarify the meaning of the term "studies" in Requirement R11 and what should be done regarding SOLs when system conditions Several stakeholders questioned if the interpretation added to the existing requirements. The drafting team states that no new requirements are intended. change. Requirement R11 does not require new, detailed studies when system conditions remain essentially unchanged. The requirement does, however, require the TOP to determine whether any new SOLs might occur if conditions have changed. This determination is not just checking to see if the existing known set of SOLs has been newly exceeded, but includes a check to see if SOLs have developed that were not in the existing set.

| Comment | The response to Question Two changes the intent of requirement 11 and has the potential of reducing reliability. We are concerned that the interpretation lowers the bar by stating that a review of a "next-day study" qualifies as a study. We do agree that the requirement does not specify the type of study that needs to be performed but that it has to be a study not a review. ATC suggests that the response to question two be re-worded and the language stating that a review is equal to a study be deleted. |
|---------|---|
| Vote | Abstain |
| Segment | 1 |
| Entity | American Transmission Company, LLC |
| Voter | Jason Shaver |

Response: Question 2 asked what constitutes a study. Study is not a defined term and has a wide-ranging meaning to the industry based on the context of particularly if the inputs and model have not changed since the last set of results. The TOP has the discretion to determine which type of study is necessary, Sometimes a study refers to a long-term transmission planning study that involves months of effort, and sometimes a study means simply reviewing the validity of an existing set of results. It does not necessarily mean that new inputs need to be gathered, models updated, and power flows cranked, and this interpretation does not modify, redact, or add to the requirement.

| | and the median does not medially, reduct, or add to the regulations. | 2 2 22 22 2 | | |
|------------|--|-------------|----------|---|
| Donald S. | Bonneville Power | 1 | Negative | We believe this request is important and valuable to many and it is our opinion that the |
| Watkins | Administration | | | responses to questions 1 and 2 provide improved clarity that is consistent with the standard. |
| | | | | However, we found response to question 3. to be unsupported by any language in the |
| Rebecca | | 3 | | standard. We believe the term "to determine SOLs" in Requirement R11 means |
| Berdahl | | | | "determination of system operating limits". The current interpretation for question 3 appears |
| | | | | to suggest that R11 requires that the TOP also check to see if there are patterns that would |
| Francis J. | | 2 | | result in violations of the applicable SOL. There is no explicit language in the standard which |
| Halpin | | | | would obligate the TOP to this type of investigation. We believe that "Identification of |
| | | | | potential SOL violations" is outside the scope of this requirement. There are tens of |
| Brenda S. | | 9 | | thousands (or more) possible events that could cause a flow to exceed an SOL. A study |
| Anderson | | | | defines what the SOL is. Once a defined SOL is established, it is the operators job to keep |
| | | | | flows under that limit or to bring the flows back under the limit within some set maximum |

| Comment | amount of time should the limit be exceeded. We therefore recommend that the interpretation for question 3 be limited, based on the explicit language in the R.11, to the following: The term, "to determine SOLs" as used in the first sentence of Requirement R11 means the "determination of system operating limits," and does not include "identification of potential SOL violations." |
|---------|--|
| Vote | |
| Segment | |
| Seg | |
| | |
| Entity | |
| | |
| <u></u> | |
| | İ |

previous studies are invalidated, then the TOP must attempt to identify as many SOLs as possible via its systems and tools. This interpretation clarifies that the Response: The interpretation clarifies that Requirement R11 requires identification of potential SOLs – just not all potential SOLs. In the case that results of TOP is not excused from attempting to re-evaluate its system just because conditions have changed.

The request and the interpretation offered here attempts to put more clarity to the meaning of the term "studies" as used in TOP-002. In Requirement R11, the two phrases "studies to determine SOLs" and "update these studies as necessary to reflect current system conditions" could lead to alternative responses.

Question 3 deals with the issue of "what if" the previous studies are rendered useless because of changes in system conditions? Requirement R11 unequivocally states that "The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions...." The interpretation is that the TOP must attempt to identify the weak links in the updated system. The idea that the TOP need not attempt to identify new weak links (i.e., new The interpretation attempts to eliminate the idea that any one type of study is required to determine SOLs. That issue is dealt with in Questions 1 & 2. potential SOLs) would put the system at what many would believe is inappropriate risk.

Requirement R11 does not require a complete analysis but does require "a" study. The responses to Questions 1 & 2 were meant to clearly state that the type of study is up to the TOP. The interpretation in no way obligates the TOP to identify every possible SOL, but it does not require the TOP to do as complete a Note, the interpretation does not require a complete evaluation. Considering that major system changes can occur at any instant, the interpretation is that study as was done in the Operations Planning environment. The intent of interpretation is to convey that the TOP must exercise due diligence to address changes in the system.

| ed for each operating | that a previous study | |
|---|---|---------------------------------------|
| Affirmative Each Transmission Owner shall maintain records of operating studies used for each operating | day and shall provide evidence that a review was performed to confirm that a previous study | is still valid for the operating day. |
| Affirmative | | |
| 1 | | |
| Manitoba Hydro | | |
| Michelle | Rheault | |

Response: The team agrees. Study is not a defined term and has a wide-ranging meaning to the industry based on the context of its use. Sometimes a study refers to a long-term transmission planning study that involves months of effort, and sometimes a study means simply reviewing the validity of an existing set of results. It does not necessarily mean that new inputs need to be gathered, models updated, and power flows cranked, particularly if the inputs and model have not changed since the last set of results. The TOP has the discretion to determine which type of study is necessary, and this interpretation does not

| Voter | Entity | Segment | Vote | Comment | |
|--------------|--|---------|----------|--|---|
| modify, reda | nodify, redact, or add to the requirement. | ment. | | | |
| Michael J | National Grid | 1 | Negative | National Grid agrees with the interpretation regarding Questions #1 & #2. In regards to | |
| Ranalli | | | | Question #3, R11 specifically refers to "studies to determine SOLs". Therefore, it clearly | |
| | | | | applies only to determining SOLs. The interpretation goes well beyond the words of R11. If | |
| Michael | Niagara Mohawk | က | | the Standard needs to be revised to include evaluating SOLs for possible violations, then it | |
| Schiavone | (National Grid | | | should be revised. National Grid does not oppose the concept that SOLs need to be analyzed | _ |
| | Company) | | | for possible violations and in fact indorses the concept. However interpretations should not | |
| | | | | be used to revise the standard | |

Response: There is no dispute with National Grid's statement that "Interpretations should not be used to revise standards." The team does not intend for this interpretation to impose any new requirements. The request and the interpretation offered here attempts to put more clarity to the meaning of the term "studies" as used in TOP-002. In Requirement R11, the two phrases "studies to determine SOLs" and "update these studies as necessary to reflect current system conditions" could lead to alternative responses.

Question 3 deals with the issue of "what if" the previous studies are rendered useless because of changes in system conditions? Requirement R11 unequivocally states that "The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions...." The interpretation is that the TOP must attempt to identify the weak links in the new, changed system. The idea that the TOP need not attempt to identify new weak links (i.e., The interpretation attempts to eliminate the idea that any one type of study is required to determine SOLs. That issue is dealt with in Questions 1 & 2. new potential SOLs) would put the system at what many would believe is inappropriate risk.

Requirement R11 does not require a complete analysis but does require "a" study. The responses to Questions 1 & 2 were meant to clearly state that the type of study is up to the TOP. The interpretation in no way obligates the TOP to identify every possible SOL, but it does not require the TOP to do as complete a Note, the interpretation does not require a complete evaluation. Considering that major system changes can occur at any instant, the interpretation is that study as was done in the Operations Planning environment. The intent of interpretation is to convey that the TOP must exercise due diligence to address changes in the system.

| | | _ |
|---------|---|---|
| Comment | Northeast Utilities votes NO and offers the below as an alternate version of the response to Question #3 that provides a more concise answer. Edited Response: ******************************* Requirement R11 is meant to include both determining new limits and verifying pre-defined SOLs. If system conditions indicate to the Transmission Operator that prior studies and SOLs may be outdated, TOP-002-2 mandates the Transmission Operator determines that system conditions do not warrant a new study, the primary purpose of the review is to check that the previously defined (i.e., defined from the current SOLs in use, or the set defined by the planners) SOLs are valid. In the event a potential SOL violation is identified, the TOP must then "plan to meet all [SOLs]" in accordance with Requirement R10 of TOP-002-2. As written, the standard provides the Transmission Operator discretion regarding when to look for new SOLs and when to rely on its current set of SOLs. ************************************ | |
| Vote | Negative | |
| Segment | Ţ. | |
| Entity | Northeast Utilities | |
| Voter | David H. Boguslawski | |

Response: The issue NEU seems to raise concerns about is whether or not a study is meant to develop a MW (or other quantity) value for use as an SOL(s), or whether a study is meant to identify when those MW or other values are exceeded.

shows that limit y will be at risk of being exceeded and generation is now needed in Area B), then the TOP must attempt to identify the weak link(s) (i.e., in this meaningful, the TOP would be expected to diligently define or redefine MW or other values for use as SOLs. On the other hand, if the changes are such that example limit y). However, it does not put the TOP in a non-compliance state if its new study happened to miss identifying some other limit (z), or even the Given the set of circumstances, the interpretation would mandate either or both. If the changes are so significant that the MW or other values are no longer the old quantities are still appropriate but there is a need to identify if the flows will effect the same problems (e.g., case 1 shows limit x will have a risk of being exceeded, so the TOP requires generation in area A; the new system environment happens to show parallel flows off-set the flow on limit x but now

Studies are run to identify areas of concern (i.e., limits that are or may be exceeded). This interpretation neither adds any new requirements nor modifies current requirements.

| the second secon | | | | |
|--|------------------|---|-------------|---|
| Kathleen | ISO New England, | 2 | Affirmative | Affirmative The Interpretation states "Requirement R.11 is meant to include both determining new limits |
| Goodman | Inc. | | | and identifying potential exceedances of pre-defined SOLs." This could be viewed by some to |
| | | | | change the intent of the Requirement and it is believed the SDT meant to say "Requirement |
| | | | | R.11 is meant to include both determining new limits and verification of other |
| | | | | predefined/predetermined SOLs." |

Response: The language of the requirement is meant to determine new SOLs and verify existing SOLs. The interpretation notes that the language is also meant to include identifying potential exceedances of pre-defined SOLs.

| Voter | Entity | Segment | Vote | Comment |
|-------------------------|--|---------------------------------|---------------|--|
| Ronald Dacombe | Manitoba Hydro | ٤ | Affirmative | Each Transmission Owner shall maintain records of operating studies used for each operating day and shall provide evidence that a review was performed to confirm that a previous study is still valid for the operating day. |
| Response: | The team agrees and thanks you for your | anks you for yo | our support. | |
| Michael Lupo | New York Power Authority | м | Affirmative | Some members of the RSC are advocating submission of a comment irrespective that the interpretation process will not incorporate it. The comment is as follows: In the response to Question #3 that appears in the Interpretation, it states the following-"Requirement R-11 is meant to include both determining new limits and identifying potential exceedances of predefined SOLs". This could be viewed by some to change the intent of the Requirement and it is believed the SDT meant to say "Requirement R-11 is meant to include both determining new limits and verification of other predefined/predetermined SOLs". |
| Response: | Response: The language of the requirement is meant to determine ne | uirement is me | ant to determ | t to determine new SOLs and verify existing SOLs. The interpretation notes that the language is also |
| Mark Aikens | Manitoba Hydro | 5 | Affirmative | Each Transmission Owner shall maintain records of operating studies used for each operating day and shall provide evidence that a review was performed to confirm that a previous study is still valid for the operating day. |
| Response: | Response: The team agrees and thanks you for your | anks you for yo | our support. | |
| Ralph Rufrano | New York Power Authority | H | Affirmative | In the response to Question #3 that appears in the Interpretation, it states the following- "Requirement R-11 is meant to include both determining new limits and identifying potential exceedances of pre-defined SOLs". This could be viewed by some to change the intent of the |
| Gerald Mannarino | | 5 | | Requirement and it is believed the SDT meant to say "Requirement R-11 is meant to include both determining new limits and verification of other predefined/predetermined SOLs". |
| Response: meant to incl | Response: The language of the requirement is meant to determine ne meant to include identifying potential exceedances of pre-defined limits. | uirement is me exceedances o | ant to determ | t to determine new SOLs and verify existing SOLs. The interpretation notes that the language is also pre-defined limits. |
| Daniel Prowse | Manitoba Hydro | 9 | Affirmative | Each Transmission Owner shall maintain records of operating studies used for each operating day and shall provide evidence that a review was performed to confirm that a previous study is still valid for the operating day. |
| Response: | Response: The team agrees and thanks you for your | anks you for yo | ur support. | |
| Jerome Murray | Oregon Public Utility Commission | 6 | Affirmative | Generally the transmission operator has considerable discretion to insure system operating limits meet current and anticipated conditions. |
| Response: | Response: The team agrees and thanks you for your | anks you for yo | our support. | |

9

Consideration of Comments on Initial Ballot — TOP-002-2 — Orlando Utilities Commission Request for Interpretation (Project 2008-13)

| Entity | Segment | Vote | Comment |
|--|--|-------------|---|
| Northeast Power Coordinating Council, Inc. | 10 | Affirmative | Although NPCC realizes that no changes are allowed per the existing process we would like to include the following comment and request it be included in the NERC Standards issues database for consideration during the next revision of this standard "In the response to Question #3 that appears in the Interpretation, it states the following-"Requirement R-11 is meant to include both determining new limits and identifying potential exceedances of predefined SOLs". This could be viewed by some to change the intent of the Requirement and it is believed the SDT meant to say "Requirement R-11 is meant to include both determining new limits and verification of other predefined/predetermined SOLs". Thank you |
| | Northeast Power Coordinating Council, Inc. | | 10 Affirmative |

Response: The language of the requirement is meant to determine new SOLs and verify existing SOLs. The interpretation notes that the language is also meant to include identifying potential exceedances of pre-defined limits.



Standards Announcement

Two Recirculation Ballots December 10–19, 2008

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

Recirculation ballot windows for the following projects are now open until 8 p.m. EST on December 19, 2008:

Interpretation of TOP-002-2 Requirement R11 (Project 2008-13)

Orlando Utilities Commission asked for clarification regarding the studies of system operating limits (SOLs) required in Requirement R11. A subset of the Real-time Operations Standard Drafting Team drafted a response to address the questions. A summary of the questions is listed below:

- 1. Can studies be reused?
- 2. What constitutes a study?
- 3. Does the phrase "to determine SOLs" include the identification of potential SOL violations?

The request and interpretation can be found on the following page: http://www.nerc.com/filez/standards/Project2008-13 TOP-002 Interpretation OUC.html

Standard FAC-008-2 — Facility Ratings (Project 2006-09)

The Facility Ratings standard is undergoing modifications to address the directives in FERC Order 693. The purpose of the standard is to ensure that Facility Ratings used in the reliable planning and operation of the bulk electric system are determined based on technically sound principles.

An associated implementation plan has been developed for the new standard. The ballot for this standard includes the retirement of the associated approved standards FAC-008-1 — Facility Ratings Methodology and FAC-009-1 — Establish and Communicate Facility Ratings. The drafting team made some minor clarifying edits to the standard that did not change the scope or intent of any of the requirements or VSLs.

Project Page:

http://www.nerc.com/filez/standards/Facility Ratings Project 2006-09.html

Recirculation Ballot Process

The Standards Committee encourages all members of the Ballot Pool to review the consideration of comments submitted with the initial ballots. In the recirculation ballot, votes are counted by exception only — if a Ballot Pool member does not submit a revision to that member's original vote, the vote remains the same as in the first ballot. Members of the ballot pool may:

- Reconsider and change their vote from the first ballot.
- Vote in the second ballot even if they did not vote on the first ballot.
- Take no action if they do not want to change their original vote.

Standards Development Process

The <u>Reliability Standards Development Procedure</u> 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.



Request for an Interpretation of a Reliability Standard

Date submitted: 08/27/08

Contact information for person requesting the interpretation:

Name: Richard Kinas

Organization: Orlando Utilities Comission

Telephone: 407-384-4063

E-mail: <u>rkinas@ouc.com</u>

Identify the standard that needs clarification:

Standard Number: TOP-002-2 Normal Operations Planning

Identify specifically what needs clarification:

Requirement Number and Text of Requirement:

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System <u>studies</u> to determine <u>SOLs</u>. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

- 1. Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?
- 2. Are there specific actions required to implement a "study"? In other words, what constitutes a study?
- 3. Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

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.

The uncertainty in the definitions of these terms and inconsistency in their application can

result in either to little or unnecessary study work being performed. Unnecessary, redundant work with no benefit to reliability performed for the purpose of meeting an overly literal interpretation of the requirement will result in higher operating costs to the end users of the transmission system and the loss of opportunities to use those resources for more important reliability-related tasks. Clarification of these two terms (Study & SOL) will aide in focusing the proper resources on the proper work, maximizing both the reliability of the system and the investment of the end user.

Project 2008-13: Response to Request for an Interpretation of TOP-002-2, Requirement R11 for Orlando Utilities Commission

The following interpretation of TOP-002-2 – Normal Operations Planning, Requirement R11 was developed by a subset of the Real-time Operations Standards Drafting Team on September 15, 2008.

Requirement Number and Text of Requirement

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System studies to determine SOLs. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

Question #1

Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?

Response to Question #1

Requirement R11 mandates that each Transmission Operator review (i.e., study) the state of its Transmission Operator area both in advance of each day and during each day. Each day must have "a" study that can be applied to it, but it is not necessary to generate a "unique" study for each day. Therefore, it is acceptable for a Transmission Operator to use a particular study for more than one day.

Question #2

Are there specific actions required to implement a "study"? In other words, what constitutes a study?

Response to Question #2

The requirement does not mandate a particular type of review or study. The review or study may be based on complex computer studies or a manual reasonability review of previously existing study results. The requirement is designed to ensure the Transmission Operator maintains sensitivity to what is happening or what is about to happen.

Question #3

Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

Response to Question #3

TOP-002-2 covers real-time and near-real-time studies. Requirement R11 is meant to include

both determining new limits and identifying potential "exceedances" of pre-defined SOLs. If system conditions indicate to the Transmission Operator that prior studies and SOLs may be outdated, TOP-002-2 mandates the Transmission Operator to conduct a study to identify SOLs for the new conditions. If the Transmission Operator determines that system conditions do not warrant a new study, the primary purpose of the review is to check that the previously defined (i.e., defined from the current SOLs in use, or the set defined by the planners) SOLs are not expected to be exceeded. As written, the standard provides the Transmission Operator discretion regarding when to look for new SOLs and when to rely on its current set of SOLs.

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Request for an Interpretation of a Reliability Standard

Date submitted: 08/27/08

Contact information for person requesting the interpretation:

Name: Richard Kinas

Organization: Orlando Utilities Comission

Telephone: 407-384-4063

E-mail: <u>rkinas@ouc.com</u>

Identify the standard that needs clarification:

Standard Number: TOP-002-2 Normal Operations Planning

Identify specifically what needs clarification:

Requirement Number and Text of Requirement:

Requirement R11: The Transmission Operator shall perform seasonal, next-day, and current-day Bulk Electric System <u>studies</u> to determine <u>SOLs</u>. Neighboring Transmission Operators shall utilize identical SOLs for common facilities. The Transmission Operator shall update these Bulk Electric System studies as necessary to reflect current system conditions; and shall make the results of Bulk Electric System studies available to the Transmission Operators, Balancing Authorities (subject to confidentiality requirements), and to its Reliability Coordinator.

- 1. Is the Transmission Operator required to conduct a "unique" study for each operating day, even when the actual or expected system conditions are identical to other days already studied? In other words, can a study be used for more than one day?
- 2. Are there specific actions required to implement a "study"? In other words, what constitutes a study?
- 3. Does the term, "to determine SOLs" as used in the first sentence of Requirement R11 mean the "determination of system operating limits" or does it mean the "identification of potential SOL violations?"

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.

The uncertainty in the definitions of these terms and inconsistency in their application can

result in either to little or unnecessary study work being performed. Unnecessary, redundant work with no benefit to reliability performed for the purpose of meeting an overly literal interpretation of the requirement will result in higher operating costs to the end users of the transmission system and the loss of opportunities to use those resources for more important reliability-related tasks. Clarification of these two terms (Study & SOL) will aide in focusing the proper resources on the proper work, maximizing both the reliability of the system and the investment of the end user.



Standards Announcement

Final Ballot Results

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

Interpretation of TOP-002-2 — Normal Operations Planning, Requirement R11 (Project 2008-13)

The ballot has passed and will be submitted to the NERC Board of Trustees for approval.

The recirculation ballot for the interpretation of TOP-002-2 — Normal Operations Planning Requirement R11 (requested by Orlando Utilities Commission) ended December 19, 2008. The final ballot results are shown below. The <u>Ballot Results</u> Web page provides a link to the detailed results.

Quorum: 87.62 % Approval: 97.47 %

Project page: http://www.nerc.com/filez/standards/Project2008-13 TOP-002_Interpretation_OUC.html

Standard FAC-008-2 — Facility Ratings (Project 2006-09)

The ballot has failed.

The recirculation ballot for Standard FAC-008-2 — Facility Ratings (Project 2006-09) ended December 19, 2008. The final ballot results are shown below. The <u>Ballot Results</u> Web page provides a link to the detailed results.

Quorum: 93.04 % Approval: 57.37 %

Project page: http://www.nerc.com/filez/standards/Facility_Ratings_Project_2006-09.html

Standard PER-005-1— System Personnel Training (Project 2006-01)

The ballot has passed and will be submitted to the NERC Board of Trustees for approval.

The recirculation ballot for Standard PER-005-1— System Personnel Training (Project 2006-01) ended December 22, 2008. The final ballot results are shown below. The <u>Ballot Results</u> Web page provides a link to the detailed results.

Quorum: 91.48 % Approval: 80.63 % Project page: http://www.nerc.com/filez/standards/System-Personnel-Training.html

Ballot Criteria

Approval requires both:

- A 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
- 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.

Standards Development Process

The <u>Reliability Standards Development Procedure</u> 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.



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

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| | Ballot Results | | | | | |
|---------------------------|--|--|--|--|--|--|
| Ballot Name: | Request for Interpretation - TOP-002-2 - Orlando Utilities Commission_rc | | | | | |
| Ballot Period: | 12/10/2008 - 12/19/2008 | | | | | |
| Ballot Type: | recirculation | | | | | |
| Total # Votes: | 184 | | | | | |
| Total Ballot Pool: | 210 | | | | | |
| Quorum: | 87.62 % The Quorum has been reached | | | | | |
| Weighted Segment Vote: | 97.47 % | | | | | |
| Ballot Results: | The Standard has Passed | | | | | |

| | | | S | ummary of | Ballot Resu | lts | | | |
|------------------|----------------|----|------------------|------------|-------------|--------------|---------|---------|------------|
| | | | | Affirr | native | Negative A | | Abstain | |
| Segment | Ballot Pool | | egment Veight | # Votes | Fraction | # Votes F | raction | # Votes | No Vote |
| | | | | | | | | | |
| 1 - Segment 1. | | 63 | 1 | 49 | 0.925 | 4 | 0.07 | 5 3 | 7 |
| 2 - Segment 2. | | 8 | 0.8 | 8 | 0.8 | C | | 0 0 | 0 |
| 3 - Segment 3. | | 51 | 1 | 41 | 0.976 | 1 | 0.02 | 4 2 | 7 |
| 4 - Segment 4. | | 12 | 1 | 10 | 1 | C | | 0 0 | 2 |
| 5 - Segment 5. | | 37 | 1 | 29 | 0.967 | 1 | 0.03 | 3 2 | 5 |
| 6 - Segment 6. | | 24 | 1 | 18 | 0.947 | 1 | 0.05 | 3 0 | 5 |
| 7 - Segment 7. | | 0 | 0 | 0 | 0 | C | | 0 0 | 0 |
| 8 - Segment 8. | | 2 | 0.2 | 2 | 0.2 | C | | 0 0 | 0 |
| 9 - Segment 9. | | 6 | 0.6 | 6 | 0.6 | C | | 0 0 | 0 |
| 10 - Segment 10. | | 7 | 0.7 | 7 | 0.7 | 0 | | 0 0 | 0 |
| Totals | 2 | 10 | 7.3 | 170 | 7.115 | 7 | 0.18 | 5 7 | 26 |

| Individual Ballot Pool Results | | | | | | | | | | |
|--------------------------------|---------------------------------------|-------------------|--------|-----------|--|--|--|--|--|--|
| Segme | ent Organization | Member | Ballot | Comments | | | | | | |
| | | | | | | | | | | |
| 1 | Ameren Services | Kirit S. Shah | Affirm | ative | | | | | | |
| 1 | American Electric Power | Paul B. Johnson | Affirm | ative | | | | | | |
| 1 | American Transmission Company, LLC | Jason Shaver | Abst | tain View | | | | | | |
| 1 | Arizona Public Service Co. | Cary B. Deise | Affirm | ative | | | | | | |
| 1 | Associated Electric Cooperative, Inc. | John Bussman | Affirm | ative | | | | | | |
| 1 | Avista Corp. | Scott Kinney | | | | | | | | |
| 1 | Bonneville Power Administration | Donald S. Watkins | Nega | tive View | | | | | | |

| 1 | Brazos Electric Power Cooperative, Inc. | Tony Kroskey | Affirmative | |
|---------------|--|--|-------------------------|------|
| 1 | CenterPoint Energy Central Maine Power Company | Paul Rocha | Affirmative Affirmative | |
| 1 | City of Tacoma, Department of Public | Brian Conroy Alan L Cooke | Affirmative | |
| | Utilities, Light Division, dba Tacoma Power | | | |
| 1 | City Utilities of Springfield, Missouri | Jeff Knottek | Affirmative Affirmative | |
| 1 | Consolidated Edison Co. of New York Dairyland Power Coop. | Christopher L de Graffenried Robert W. Roddy | 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 | Affirmative | |
| 1 | El Paso Electric Company | Dennis Malone | Ammutive | |
| 1 | Entergy Corporation | George R. Bartlett | Affirmative | |
| 1 | Exelon Energy | John J. Blazekovich | Affirmative | |
| 1 | Farmington Electric Utility System | Alan Glazner | Affirmative | |
| 1 | FirstEnergy Energy Delivery | Robert Martinko | Affirmative | |
| 1 | Florida Keys Electric Cooperative Assoc. | Dennis Minton | Negative | |
| 1 | Florida Power & Light Co. | C. Martin Mennes | Affirmative | |
| 1 | Great River Energy | Gordon Pietsch | | |
| | Hoosier Energy Rural Electric Cooperative, | | A CC: 1: | |
| 1 | Inc. | Damon Holladay | Affirmative | |
| 1 | Hydro One Networks, Inc. | Ajay Garg | Affirmative | |
| 1 | Hydro-Quebec TransEnergie | Julien Gagnon | Affirmative | |
| 1 | Idaho Power Company Vancas City Power & Light Co | Ronald D. Schellberg | Nogotivo | |
| 1 | Kansas City Power & Light Co. | Jim Useldinger | Negative | |
| 1 | Lakeland Electric | Larry E Watt | Affirmative Affirmative | |
| 1 | Lincoln Electric System Lower Colorado River Authority | Doug Bantam Martyn Turner | Affirmative | |
| 1 | Manitoba Hydro | Michelle Rheault | Affirmative | View |
| 1 | Minnesota Power, Inc. | Carol Gerou | Affirmative | view |
| 1 | National Grid | Michael J Ranalli | Affirmative | |
| 1 | New York Power Authority | Ralph Rufrano | Affirmative | View |
| 1 | New York State Electric & Gas Corp. | Henry G. Masti | Affirmative | view |
| <u>'</u> 1 | Northeast Utilities | David H. Boguslawski | Negative | View |
| 1 | Northern Indiana Public Service Co. | Joseph Dobes | Affirmative | VIEW |
| <u> </u> | Oklahoma Gas and Electric Co. | Marvin E VanBebber | Abstain | |
| 1 | Orlando Utilities Commission | Brad Chase | Affirmative | |
| 1 | Otter Tail Power Company | Lawrence R. Larson | Affirmative | |
| 1 | Pacific Gas and Electric Company | Chifong L. Thomas | Affirmative | |
| 1 | PacifiCorp | Robert Williams | Affirmative | |
| 1 | Platte River Power Authority | John C. Collins | Affirmative | |
| 1 | Potomac Electric Power Co. | Richard J. Kafka | Affirmative | |
| 1 | PP&L, Inc. | Ray Mammarella | | |
| 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 | Affirmative | |
| 1 | Sacramento Municipal Utility District | Dilip Mahendra | Affirmative | |
| 1 | Salt River Project | Robert Kondziolka | Affirmative | |
| 1 | Santee Cooper | Terry L. Blackwell | Affirmative | |
| 1 | SaskPower | Wayne Guttormson | | |
| 1 | Seattle City Light | Pawel Krupa | Affirmative | |
| 1 | Sierra Pacific Power Co. | Richard Salgo | Affirmative | |
| 1 | Southern California Edison Co. | Dana Cabbell | Abstain | |
| 1 | Southern Company Services, Inc. | Horace Stephen Williamson | Affirmative | |
| 1 | Southwest Transmission Cooperative, Inc. | James L. Jones | Affirmative | |
| 1 | Tampa Electric Co. | Thomas J. Szelistowski | | |
| 1 | Western Area Power Administration | Robert Temple | Affirmative | |
| 1 | Xcel Energy, Inc. | Gregory L. Pieper | Affirmative | |
| 2 | Alberta Electric System Operator | Anita Lee | Affirmative | |
| 2 | California ISO | David Hawkins | Affirmative | |
| 2 | Electric Reliability Council of Texas, Inc. | Roy D. McCoy | Affirmative | |
| 2 | ISO New England, Inc. | Kathleen Goodman | Affirmative | View |
| 2 | Midwest ISO, Inc. | Terry Bilke | Affirmative | |
| 2 | New Brunswick System Operator | Alden Briggs | Affirmative | |
| 2 | New York Independent System Operator | Gregory Campoli | Affirmative | |
| 2 | PJM Interconnection, L.L.C. | Tom Bowe | Affirmative | |
| | Alabama Power Company | Robin Hurst | Affirmative | |

| 3 | Ameren Services | Mark Peters | 1 | |
|---|---|-----------------------------------|-------------------------|------|
| 3 | American Electric Power | Raj Rana | A 55: 1: | |
| 3 | Arizona Public Service Co. | Thomas R. Glock | Affirmative | |
| 3 | Atlantic City Electric Company | James V. Petrella | Affirmative | |
| | Avista Corp. | Robert Lafferty | Abstain | |
| 3 | BC Hydro and Power Authority Bonneville Power Administration | Pat G. Harrington Rebecca Berdahl | Abstain | Minu |
| 3 | | | Negative Affirmative | View |
| | City Orbitis Service of Sen Antonia | Rusty S. Foster | | |
| 3 | City Public Service of San Antonio | Edwin Les Barrow | Affirmative | |
| 3 | Commonwealth Edison Co. | Stephen Lesniak | Affirmative | |
| 3 | Consolidated Edison Co. of New York | Peter T Yost | Affirmative | |
| 3 | Consumers Energy | David A. Lapinski | Affirmative | |
| 3 | Delmarva Power & Light Co. | Michael R. Mayer | 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 | Joanne Kathleen Borrell | Affirmative | |
| 3 | Florida Power & Light Co. | W. R. Schoneck | Affirmative | |
| 3 | Florida Power Corporation | Lee Schuster | Affirmative | |
| 3 | Georgia Power Company | Leslie Sibert | Affirmative | |
| 3 | Grays Harbor PUD | Wesley W Gray | Affirmative | |
| 3 | Great River Energy | Sam Kokkinen | | |
| 3 | Gulf Power Company | Gwen S Frazier | Affirmative | |
| 3 | Hydro One Networks, Inc. | Michael D. Penstone | Affirmative | |
| 3 | Kissimmee Utility Authority | Gregory David Woessner | Affirmative | |
| 3 | Lakeland Electric | Mace Hunter | Affirmative | |
| 3 | Lincoln Electric System | Bruce Merrill | Affirmative | |
| 3 | Louisville Gas and Electric Co. | Charles A. Freibert | Affirmative | |
| 3 | Manitoba Hydro | Ronald Dacombe | Affirmative | View |
| 3 | MidAmerican Energy Co. | Thomas C. Mielnik | | |
| 3 | Mississippi Power | Don Horsley | Affirmative | |
| 3 | Municipal Electric Authority of Georgia | Steven M. Jackson | | |
| 3 | New York Power Authority | Michael Lupo | Affirmative | View |
| 3 | Niagara Mohawk (National Grid Company) | Michael Schiavone | Affirmative | View |
| 3 | Northern Indiana Public Service Co. | William SeDoris | Affirmative | |
| 3 | Orlando Utilities Commission | Ballard Keith Mutters | Affirmative | |
| 3 | PECO Energy an Exelon Co. | John J. McCawley | Affirmative | |
| 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 | Salt River Project | John T. Underhill | Affirmative | |
| 3 | San Diego Gas & Electric | Scott Peterson | Ammative | |
| | | | Affirmative | |
| 3 | Santee Cooper | Zack Dusenbury | Affirmative | |
| 3 | Seattle City Light | Dana Wheelock | Affirmative | |
| | Tampa Electric Co. | Ronald L. Donahey | V 66: | |
| 3 | Wisconsin Electric Power Marketing | James R. Keller | Affirmative | |
| 3 | Wisconsin Public Service Corp. | James Maenner | Affirmative | |
| 3 | Xcel Energy, Inc. | Michael Ibold | Affirmative | |
| 4 | Alliant Energy Corp. Services, Inc. | Kenneth Goldsmith | Affirmative | |
| 4 | Consumers Energy | David Frank Ronk | Affirmative | |
| 4 | Florida Municipal Power Agency | Thomas Reedy | Affirmative | |
| 4 | Madison Gas and Electric Co. | Joseph G. DePoorter | Affirmative | |
| 4 | Northern California Power Agency | Fred E. Young | Affirmative | |
| 4 | Ohio Edison Company | Douglas Hohlbaugh | Affirmative | |
| 4 | Old Dominion Electric Coop. | Mark Ringhausen | Affirmative | |
| 4 | Public Utility District No. 1 of Douglas County | Henry E. LuBean | | |
| 4 | Seattle City Light | Hao Li | Affirmative | |
| 4 | Seminole Electric Cooperative, Inc. | Steven R. Wallace | Affirmative | |
| 4 | Wisconsin Energy Corp. | Anthony Jankowski | Affirmative | |
| 4 | Wisconsin Public Power Inc. | Pat Connors | | |
| 5 | AEP Service Corp. | Brock Ondayko | Affirmative | |
| 5 | Amerenue | Sam Dwyer | Affirmative | |
| 5 | Avista Corp. | Edward F. Groce | Abstain | |
| 5 | Bonneville Power Administration | Francis J. Halpin | Negative | View |
| 9 | | | | |

| 5 | City Water, Light & Power of Springfield | Karl E. Kohlrus | Affirmative | |
|-----------------------|---|---|---|-------|
| 5 | Colmac Clarion/Piney Creek LP | Harvie D. Beavers | Affirmative | |
| 5 | Conectiv Energy Supply, Inc. | Richard K. Douglass | Affirmative Affirmative | |
| 5 5 | Consumers Energy Dairyland Power Coop. | James B Lewis Warren Schaefer | Affirmative | |
| | | | | |
| 5 | Detroit Edison Company | Ronald W. Bauer | Affirmative | |
| 5 | Dominion Resources, Inc. | Mike Garton | Affirmative | |
| 5 | Entergy Corporation | Stanley M Jaskot | Affirmative | |
| 5 | Florida Power & Light Co. | Robert A. Birch | 2.551 | |
| 5 | Gainesville Regional Utilities | Mark Bennett | Affirmative | |
| 5 | Great River Energy | Cynthia E Sulzer | | |
| 5 | JEA | Donald Gilbert | Affirmative | |
| 5 | Lincoln Electric System | Dennis Florom | Affirmative | |
| 5 | Louisville Gas and Electric Co. | Charlie Martin | Affirmative | |
| 5 | Manitoba Hydro | Mark Aikens | Affirmative | View |
| 5 | New York Power Authority | Gerald Mannarino | Affirmative | View |
| 5 | Northern States Power Co. | Liam Noailles | Affirmative | |
| 5 | Orlando Utilities Commission | Richard Kinas | Affirmative | |
| 5 | PPL Generation LLC | Mark A. Heimbach | Affirmative | |
| 5 | Progress Energy Carolinas | Wayne Lewis | Affirmative | |
| 5 | PSEG Power LLC | Thomas Piascik | Affirmative | |
| 5 | Reliant Energy Services | Thomas J. Bradish | Affirmative | |
| 5 | Salt River Project | Glen Reeves | Affirmative | |
| 5 | Seattle City Light | Michael J. Haynes | Affirmative | |
| 5 5 | | Brenda K. Atkins | Amminative | |
| | Seminole Electric Cooperative, Inc. | | | |
| 5 | South Mississippi Electric Power Association | Jerry W Johnson | n.cc: 1: | |
| 5 | Southern California Edison Co. | David Schiada | Affirmative | |
| 5 | Southern Company Services, Inc. | Roger D. Green | | |
| 5 | Tampa Electric Co. | Frank L Busot | Affirmative | |
| 5 | U.S. Army Corps of Engineers Northwestern Division | Karl Bryan | Affirmative | |
| 5 | U.S. Bureau of Reclamation | Martin Bauer | Abstain | |
| 5 | Wisconsin Electric Power Co. | Linda Horn | Affirmative | |
| 6 | AEP Marketing | Edward P. Cox | Affirmative | |
| 6 | Ameren Energy Marketing Co. | Jennifer Richardson | Affirmative | |
| 6 | Bonneville Power Administration | Brenda S. Anderson | Negative | View |
| 6 | Consolidated Edison Co. of New York | Nickesha P Carrol | Affirmative | |
| 6 | Dominion Resources, Inc. | Louis S Slade | Affirmative | |
| 6 | Entergy Services, Inc. | William Franklin | Affirmative | |
| 6 | Eugene Water & Electric Board | Daniel Mark Bedbury | Affirmative | |
| | | - | Affirmative | |
| 6 | FirstEnergy Solutions | Mark S Travaglianti | Allifmative | |
| 6 | Florida Municipal Power Agency | Robert C. Williams | 2.551 | |
| 6 | Lincoln Electric System | Eric Ruskamp | Affirmative | |
| 6 | Louisville Gas and Electric Co. | Daryn Barker | Affirmative | |
| 6 | Manitoba Hydro | Daniel Prowse | Affirmative | View |
| 6 | New York Power Authority | Thomas Papadopoulos | Affirmative | |
| 6 | PP&L, Inc. | Thomas Hyzinski | | |
| 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 | Salt River Project | Mike Hummel | Affirmative | |
| 6 | Santee Cooper | Suzanne Ritter | Affirmative | |
| 6 | Seminole Electric Cooperative, Inc. | Trudy S. Novak | Affirmative | |
| 6 | Southern California Edison Co. | Marcus V Lotto | Affirmative | |
| 6 | Tampa Electric Co. | Jose Benjamin Quintas | Ammative | |
| U | Western Area Power Administration - UGP | | Affirmative | |
| 6 | | Donn Stoneparger | | |
| 6 | Marketing Xcel Energy, Inc. | John Stonebarger David F. Lemmons | Ammative | |
| | Marketing Xcel Energy, Inc. | David F. Lemmons | | |
| 6 | Marketing Xcel Energy, Inc. JDRJC Associates | David F. Lemmons Jim D. Cyrulewski | Affirmative | |
| 6 8 8 | Marketing Xcel Energy, Inc. JDRJC Associates Volkmann Consulting, Inc. | David F. Lemmons Jim D. Cyrulewski Terry Volkmann | Affirmative Affirmative | |
| 6 | Marketing Xcel Energy, Inc. JDRJC Associates Volkmann Consulting, Inc. California Energy Commission Commonwealth of Massachusetts Department | David F. Lemmons Jim D. Cyrulewski | Affirmative | |
| 6 8 8 9 | Marketing Xcel Energy, Inc. JDRJC Associates Volkmann Consulting, Inc. California Energy Commission Commonwealth of Massachusetts Department of Public Utilities National Association of Regulatory Utility | David F. Lemmons Jim D. Cyrulewski Terry Volkmann William Mitchell Chamberlain | Affirmative Affirmative Affirmative | |
| 6 8 8 9 9 | Marketing Xcel Energy, Inc. JDRJC Associates Volkmann Consulting, Inc. California Energy Commission Commonwealth of Massachusetts Department of Public Utilities National Association of Regulatory Utility Commissioners | David F. Lemmons Jim D. Cyrulewski Terry Volkmann William Mitchell Chamberlain Donald E. Nelson Diane J. Barney | Affirmative Affirmative Affirmative Affirmative | Vious |
| 6 8 8 9 | Marketing Xcel Energy, Inc. JDRJC Associates Volkmann Consulting, Inc. California Energy Commission Commonwealth of Massachusetts Department of Public Utilities National Association of Regulatory Utility | David F. Lemmons Jim D. Cyrulewski Terry Volkmann William Mitchell Chamberlain Donald E. Nelson | Affirmative Affirmative Affirmative Affirmative | View |



| 10 | Electric Reliability Council of Texas, Inc. | Kent Saathoff | Affirmative | |
|----|---|------------------|-------------|------|
| 10 | Midwest Reliability Organization | Larry Brusseau | Affirmative | |
| 10 | New York State Reliability Council | Alan Adamson | Affirmative | |
| 10 | Northeast Power Coordinating Council, Inc. | Guy Zito | Affirmative | View |
| 10 | SERC Reliability Corporation | Carter B. Edge | Affirmative | |
| 10 | Southwest Power Pool | Charles H. Yeung | Affirmative | |
| 10 | Western Electricity Coordinating Council | Louise McCarren | Affirmative | |
| | | | | |

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