December 8, 2009

VIA ELECTRONIC FILING

Dan McInnis
Assistant Deputy Minister
Energy Development Initiative
1200-155 Carlton Street
Winnipeg, Manitoba, Canada
R3C 3H8

Re: *North American Electric Reliability Corporation*

Dear Mr. McInnis:

The North American Electric Reliability Corporation ("NERC") hereby submits this Notice of Filing of interpretation of Requirement R1.3.10 in NERC Reliability Standard TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B) set forth in **Exhibit A** to this notice. The standard that includes the interpretation will be referred to as TPL-002-0b.

The interpretation was approved by the NERC Board of Trustees on November 5, 2009.

NERC's notice consists of the following:

- This transmittal letter;
- A table of contents for the filing;
- A narrative description explaining how the interpretation meets the reliability goal of the standard involved;
- Interpretation of TPL-002-0, Requirement R1.3.10 (**Exhibit A**);
- Reliability Standard TPL-002-0b — System Performance Following Loss of a Single Bulk Electric System Element (Category B) that includes the appended interpretation (**Exhibit B**);

- The complete development record of the interpretation (**Exhibit C**); and
- A roster of the interpretation development team **(Exhibit D)**.

Please contact the undersigned if you have any questions.

Respectfully submitted,

/s/ Holly A. Hawkins
Holly A. Hawkins
Attorney for North American Electric Reliability Corporation

BEFORE THE
PROVINCE OF MANITOBA

NORTH AMERICAN ELECTRIC	**)**
RELIABILITY CORPORATION	**)**

NOTICE OF FILING OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION OF INTERPRETATION TO RELIABILITY STANDARD TPL-002-0 — SYSTEM PERFORMANCE FOLLOWING LOSS OF A SINGLE BULK ELECTRIC SYSTEM ELEMENT (CATEGORY B)

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December 8, 2009

TABLE OF CONTENTS

I. INTRODUCTION

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

– TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B), Requirement R1.3.10

No modification to the language contained in this specific requirement is being proposed through the interpretation. The NERC Board of Trustees approved the interpretation to TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B), Requirement R1.3.10 on November 5, 2009. **Exhibit A** to this filing sets forth the interpretation. **Exhibit B** contains the affected Reliability Standard containing the appended interpretation. **Exhibit C** contains the complete development record of the interpretation to the Reliability Standard requirement. **Exhibit D** contains the interpretation development team roster.

NERC filed this interpretation with the Federal Energy Regulatory Commission ("FERC") on November 17, 2009, and is filing this interpretation with the other applicable governmental authorities in Canada.

II. NOTICES AND COMMUNICATIONS

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

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III. BACKGROUND

a. 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.[1] Upon request, NERC will assemble a team with the relevant expertise to address the interpretation request and, within 45 days, present an 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 with the applicable governmental authorities to be made effective when approved. When the affected Reliability Standard is next revised using

[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_StandardsDevelopmentProcess.pdf.

the *Reliability Standards Development Procedure*, the interpretation will then be incorporated into the Reliability Standard.

The interpretation set out in **Exhibit A** has been developed and approved by industry stakeholders using NERC's *Reliability Standards Development Procedure.* It was approved by the NERC Board of Trustees on November 5, 2009.

During its November 5, 2009 meeting, the NERC Board of Trustees offered guidance regarding interpretations and the interpretations process. As part of this guidance, the NERC Board of Trustees adopted the following resolution:

> WHEREAS, the NERC Board of Trustees has considered the record of development of a number of proposed interpretations of Reliability Standards, the discussion and recommendations from the November 4, 2009 conference on interpretations, and the recommendation of NERC management,
>
> RESOLVED, that the NERC Board of Trustees approves the following proposed interpretations of Reliability Standards:
>
> 1. Interpretation of Requirement R1 of PRC-005-1;
> 2. Interpretations of Requirement R3 of TOP-005-1 and Requirement R12 of IRO-005-1;
> 3. Interpretation of Requirement R2 of CIP-007-1;
> 4. Interpretation of Requirement R1.3.10 of TPL-002-0; and
> 5. Interpretation of Requirements R2 and R8 of MOD-001-1 and Requirements R5 and R6 of MOD-029-1.
>
> FURTHER RESOLVED, that the NERC Board of Trustees provides the following guidance regarding interpretations and the interpretations process:
>
> a. In deciding whether or not to approve a proposed interpretation, the board will use a standard of strict construction and not seek to expand the reach of the standard to correct a perceived gap or deficiency in the standard;
>
> b. It is the expectation of the board that when work on an interpretation reveals a gap or deficiency in a Reliability Standard, stakeholders will take prompt action to address the gap or deficiency in the standard and that the time and effort expended on the interpretation should be a relatively small proportion of the time and effort expended on addressing the gap or deficiency;

c. Priority should be given to addressing deficiencies or gaps in standards that pose a significant risk to the reliability of the bulk power system — addressing the gaps and deficiencies identified in Reliability Standard PRC-005-1 should be given such priority, and the Standards Committee should report on its plans and progress in that regard at the board's February 2010 meeting;

d. The Standards Committee should ensure that the comments by NERC staff and other stakeholders on the proposed interpretations are considered by the standard drafting team in addressing any identified gaps and deficiencies, with a report back to the board on the disposition of those comments;

e. The number of registrants that might end up in non-compliance or the difficulty of compliance are not appropriate inputs to an interpretation process, although those inputs may well be appropriate considerations in a standard development process and development of an implementation plan;

f. Requests for a decision on how a Reliability Standard applies to a registered entity's particular facts and circumstances should not be addressed through the interpretations process.

Consistent with its Resolution, the NERC Board of Trustees, in approving this interpretation, did so using a standard of strict construction that does not expand the reach of the standard or correct a perceived gap or deficiency in the standard. However, the NERC Board of Trustees recommended that any gaps or deficiencies in a Reliability Standard that are evident through the interpretation process be addressed promptly by the standard drafting team. NERC has been so advised, and will further examine any gaps or deficiencies in Reliability Standard TPL-002-0 in its consideration of the next version of this standard through the Reliability Standards Development Procedure. This standard is included in Project 2006-02 — Assess Transmission Future Needs and Develop Transmission Plans that is expected to be completed in the first half of 2010.

IV. TPL-002-0— System Performance Following Loss of a Single Bulk Electric System Element (Category B), Requirement R1.3.10

Reliability Standard TPL-002-0 addresses system planning related to performance under Category B contingencies. Category B contingencies result in the loss of a single element, defined as a generator, transmission circuit, transformer, or a single DC pole with our without fault (*i.e.*, the occurrence of an event such as a short circuit, a broken wire or an intermittent connection). The Reliability Standard seeks to ensure that the future Bulk Power System is planned to meet the system performance requirements, with the loss of one element, by requiring that the Transmission Planner and Planning Authority annually evaluate and document the ability of the transmission system to meet the performance requirements where an event results in the loss of a single element. Meeting these requirements means two things. First, it means that the system can be operated following the event to supply projected firm customer demands and projected firm (non-recallable/reserved) transmission services at all demand levels over the range of forecast system demands. Second, it means that the system remains stable and within the applicable ratings for thermal and voltage limits, no loss of demand or curtailed firm transfers occurs and no cascading outages occur. The Reliability Standard applies both to near-term and longer-term planning horizons.

TPL-002-0 specifies that the Planning Authority and Transmission Planner must demonstrate through a valid assessment that the system performance requirements can be met. The assessment must be supported by either a current or past study or system simulation testing that addresses various categories of conditions to be simulated, as set forth in the Reliability Standard, to verify system performance under contingency conditions involving the failure of a single element with or without a fault. The

Reliability Standard requires that planned outages of transmission equipment be considered for those demand levels for which planned outages are performed. When system simulations indicate that the system cannot meet the performance requirements stipulated in the Reliability Standard, a documented plan to achieve system performance requirements must be prepared. The specific study elements selected from each of the categories for assessments are subject to approval by the associated Regional Reliability Organization.[2] TPL-002-0, Requirement R1.3.10 specifically requires that the effects of existing and planned protection systems, including any backup or redundant systems, be included in system simulation tests or associated system assessments.

In this filing, NERC is submitting a proposed interpretation to Requirement R1.3.10, which is included in TPL-002-0b found in **Exhibit B**. In Section IV (a) below, NERC discusses the interpretation, explains the need for, and discusses the development of the interpretation to Requirement R1.3.10 of TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B). In this discussion, NERC demonstrates that the interpretation is consistent with the stated reliability goal of TPL-002-0 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 interpretation development team assembled to provide the interpretation.

The complete development record for the interpretation is set forth in **Exhibit C**. **Exhibit C** includes the request for the interpretation, the response to the request for the

[2] The term Regional Reliability Organization (RRO) is no longer appropriate for use in NERC Reliability Standards. The current entity that nominally replaces the RRO is the Regional Entity. Several of the existing eight Regional Entities perform statutory functions as defined in the Federal Power Act Section 215 as well as non-statutory functions that it historically performed as the RRO. Others perform only statutory functions.

interpretation, the ballot pool and the final ballot results by registered ballot body members, stakeholder comments received during the balloting and an explanation of how those comments were considered. **Exhibit D** contains the interpretation development team roster.

a. Justification of Interpretation

The stated purpose of TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B) is as follows:

> "System simulations and associated assessments are needed periodically to ensure that reliable systems are developed that meet specified performance requirements with sufficient lead time, and continue to be modified or upgraded as necessary to meet present and future system needs."

TPL-002-0 Requirement R1.3.10 is an element in a list of elements that must be present in an assessment of a portion of the interconnected transmission system to demonstrate that a portion of the interconnected transmission system is planned so that the Network can be operated to supply projected customer demands and projected Firm (non-recallable/reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table I. Category B events resulting in the loss of single element include single line ground (SLG) or 3-Phase Faults with Normal Clearing, Loss of an Element without a Fault, or a Single Pole Block with Normal Clearing. To be valid, the Planning Authority and Transmission Planner assessments must meet these criteria specified in the requirements of the standard:

> **R1.** The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under

the contingency conditions as defined in Category B of Table I. To be valid, the Planning Authority and Transmission Planner assessments shall:

R1.1. Be made annually.

R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.

R1.3. Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).

R1.3.1. Be performed and evaluated only for those Category B contingencies that would produce the more severe System results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.

R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.

R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.

R1.3.4. Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.

R1.3.5. Have all projected firm transfers modeled.

R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system Demands.

R1.3.7. Demonstrate that system performance meets Category B contingencies.

R1.3.8. Include existing and planned facilities.

R1.3.9. Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.

R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.

R1.3.11. Include the effects of existing and planned control devices.

R1.3.12. Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed

Of importance to the request, the term "Normal Clearing" is defined in footnote (e) to Table 1 that accompanies TPL-002-0. It is defined as follows:

> "Normal clearing is when the protection system operates as designed and the Fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a Fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer, and not because of an intentional design delay."

On January 12, 2009, PacifiCorp requested an interpretation of TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B), Requirement R1.3.10. Specifically, PacifiCorp asked three questions to which the standard drafting team for Project 2006-02: Assess Transmission Future Needs and Develop Transmission Plans provided the following responses:

- **Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?**

  Response: *TPL-002-0 requires that System studies or simulations be made to assess the impact of single Contingency operation with Normal Clearing. TPL-002-0a R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations.*

- **Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?**

  Response: *This standard does not require an assessment of the Transmission System performance due to a Protection System failure or Protection System misoperation. Protection System failure or Protection System misoperation is addressed in TPL-003-0 — System Performance following Loss of Two or More Bulk Electric System Elements (Category C) and TPL-004-0 — System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D).*

- **Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I — Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?**

Response: *TPL-002-0a R1.3.10 does not require simulating anything other than Normal Clearing when assessing the impact of a Single Line Ground (SLG) or 3-Phase (3Ø) Fault on the performance of the Transmission System.*

NERC believes that the interpretation as presented directly supports the reliability purpose of the standard because it clarifies what is required for the "System simulations" cited in the main requirement without expanding the reach of the standard. Additionally, this interpretation clearly identifies what needs to be done--that all elements expected to be removed from service through normal operations of the Protection Systems must be removed in simulations and that only Normal Clearing is required in the simulations. It also clearly distinguishes that misoperations and failures of the Protection System are not part of TPL-002-0, but are addressed in other standards. This interpretation will result in ensuring that an adequate level of reliability for the bulk power system will be achieved and maintained by providing clarity and certainty in support of this important reliability objective. Should the standard drafting team determine that there are gaps or deficiencies in Reliability Standard TPL-002-0 that require the language of the standard itself to be modified, these gaps or deficiencies will be examined by the standard drafting team working on the development of the next version of the TPL-002 Reliability Standard, in accordance with the NERC Board of Trustees' Resolution of November 5, 2009.

b. Summary of the Reliability Standard Development Proceedings

On January 12, 2009, PacifiCorp requested an interpretation of TPL-002-0 — System Performance Following Loss of a Single Bulk Electric System Element (Category B), Requirement R1.3.10. In accordance with its *Reliability Standard Development Procedure*, NERC presented the response for pre-ballot review on April 30, 2009 and conducted a ten-day initial ballot that began on June 1, 2009. The ballot achieved 87.10

percent quorum and a 95.71 percent weighted approval. There were ten negative ballots submitted for the initial ballot, and six of those ballots included a comment. NERC held a recirculation ballot of the interpretation response from July 24, 2009 through August 6, 2009 and achieved a quorum of 91.24 percent with a weighted affirmative approval of 98.95 percent.

Commenters generally agreed with the interpretation development team's interpretation and suggested the addition of explanatory text to the interpretation statements. The reason cited for the negative ballot referenced support for the comments of Duke Energy, which voted affirmative but offered suggestions[3] for further guidance related to "Normal Clearing."

Respectfully submitted,

/s/ Holly A. Hawkins

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[3] Duke Energy comments reference support for the standards authorization request (SAR) for Project 2009-07: Reliability of Protection Systems. The SAR for Project 2009-07 proposes a standard requiring facility owners to have protection system equipment installed such that, if there were a failure to a specified component of that protection system, the failure would not prevent meeting the bulk electric system performance identified in the TPL standards. The SAR for that project has been posted for industry comment once and the SAR drafting team is assisting the requester in responding to comments.

Exhibit A

Interpretation of Reliability Standard TPL-002-0, Requirement R1.3.10

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

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

Request for an Interpretation of a Reliability Standard

Date submitted: **January 12, 2009**

Contact information for person requesting the interpretation:

Name: **Sandra Shaffer**

Organization: **PacifiCorp**

Telephone: **503.813.5219**

E-mail: **sandra.shaffer@pacificorp.com**

Identify the standard that needs clarification:

TPL-002-A

Standard Title: **System Performance Following Loss of a Single Bulk Electric System Element (Category B)**

Identify specifically what needs clarification (If a category is not applicable, please leave it blank):

Requirement Number and Text of Requirement: **R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.**

Clarification needed: **Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?**

Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system miss-operations and failures?

Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I - Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?System Performance Following Loss of a Single Bulk Electric System Element (Category B)

Identify the material impact associated with this interpretation:

If TPL-002-0 R1.3.10 requires that planning for Category B contingencies must assume failure or misoperation of all existing and planned protection systems, protection system failures previously identified as Category C 6-9 contingencies or Category D 1-4

contingencies would now become Category B contingencies, and would be required to meet this higher standard for both SLG faults and 3-Phase faults. PacifiCorp believes this would result in the need for Transmission Providers to significantly increase their investment in the BES without a proportional improvement in overall transmission system reliability

Project 2009-14: Response to Request for an Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp

The following interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element was developed by a subset of the Assess Transmission Future Needs Standards Drafting Team.

Requirement Number and Text of Requirement

R1.3. Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).

R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.

Background Information for Interpretation

Requirement R1.3 and sub-requirement R1.3.10 of standard TPL-002-0a contain three key obligations:

1. **That the assessment is supported by "study and/or system simulation testing that addresses each the following categories, showing system performance following Category B of Table 1 (single contingencies)."**
2. **"...these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s)."**
3. **"Include the effects of existing and planned protection systems, including any backup or redundant systems."**

Category B of Table 1 (single Contingencies) specifies:

Single Line Ground (SLG) or 3-Phase (3Ø) Fault, with Normal Clearing:

1. **Generator**
2. **Transmission Circuit**
3. **Transformer**

Loss of an Element without a Fault.

Single Pole Block, Normal Clearing[e]:

4. **Single Pole (dc) Line**

***Note e specifies*:**

e) Normal Clearing is when the protection system operates as designed and the Fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a Fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer, and not because of an intentional design delay.

The NERC Glossary of Terms defines Normal Clearing as "A protection system operates as

designed and the fault is cleared in the time normally expected with proper functioning of the installed protection systems."

Conclusion

TPL-002-0a requires that System studies or simulations be made to assess the impact of single Contingency operation with Normal Clearing. TPL-002-0a R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations.

This standard does not require an assessment of the Transmission System performance due to a Protection System failure or Protection System misoperation. Protection System failure or Protection System misoperation is addressed in TPL-003-0 — System Performance following Loss of Two or More Bulk Electric System Elements (Category C) and TPL-004-0 — System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D).

TPL-002-0a R1.3.10 does not require simulating anything other than Normal Clearing when assessing the impact of a Single Line Ground (SLG) or 3-Phase (3Ø) Fault on the performance of the Transmission System.

In regards to PacifiCorp's comments on the material impact associated with this interpretation, the interpretation team has the following comment:

Requirement R2.1 requires "a written summary of plans to achieve the required system performance," including a schedule for implementation and an expected in-service date that considers lead times necessary to implement the plan. Failure to provide such summary may lead to noncompliance that could result in penalties and sanctions.

Exhibit B

Reliability Standard TPL-002-0b — System Performance Following Loss of a Single Bulk Electric System Element (Category B) that includes the Appended Interpretation

A. Introduction

1. Title: **System Performance Following Loss of a Single Bulk Electric System Element (Category B)**

2. Number: TPL-002-0b

3. Purpose: System simulations and associated assessments are needed periodically to ensure that reliable systems are developed that meet specified performance requirements with sufficient lead time, and continue to be modified or upgraded as necessary to meet present and future system needs.

4. Applicability:

4.1. Planning Authority

4.2. Transmission Planner

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

B. Requirements

R1. The Planning Authority and Transmission Planner shall each demonstrate through a valid assessment that its portion of the interconnected transmission system is planned such that the Network can be operated to supply projected customer demands and projected Firm (non-recallable reserved) Transmission Services, at all demand levels over the range of forecast system demands, under the contingency conditions as defined in Category B of Table I. To be valid, the Planning Authority and Transmission Planner assessments shall:

R1.1. Be made annually.

R1.2. Be conducted for near-term (years one through five) and longer-term (years six through ten) planning horizons.

R1.3. Be supported by a current or past study and/or system simulation testing that addresses each of the following categories,, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).

R1.3.1. Be performed and evaluated only for those Category B contingencies that would produce the more severe System results or impacts. The rationale for the contingencies selected for evaluation shall be available as supporting information. An explanation of why the remaining simulations would produce less severe system results shall be available as supporting information.

R1.3.2. Cover critical system conditions and study years as deemed appropriate by the responsible entity.

R1.3.3. Be conducted annually unless changes to system conditions do not warrant such analyses.

R1.3.4. Be conducted beyond the five-year horizon only as needed to address identified marginal conditions that may have longer lead-time solutions.

R1.3.5. Have all projected firm transfers modeled.

R1.3.6. Be performed and evaluated for selected demand levels over the range of forecast system Demands.

R1.3.7. Demonstrate that system performance meets Category B contingencies.

R1.3.8. Include existing and planned facilities.

R1.3.9. Include Reactive Power resources to ensure that adequate reactive resources are available to meet system performance.

R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.

R1.3.11. Include the effects of existing and planned control devices.

R1.3.12. Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.

R1.4. Address any planned upgrades needed to meet the performance requirements of Category B of Table I.

R1.5. Consider all contingencies applicable to Category B.

R2. When System simulations indicate an inability of the systems to respond as prescribed in Reliability Standard TPL-002-0_R1, the Planning Authority and Transmission Planner shall each:

R2.1. Provide a written summary of its plans to achieve the required system performance as described above throughout the planning horizon:

R2.1.1. Including a schedule for implementation.

R2.1.2. Including a discussion of expected required in-service dates of facilities.

R2.1.3. Consider lead times necessary to implement plans.

R2.2. Review, in subsequent annual assessments, (where sufficient lead time exists), the continuing need for identified system facilities. Detailed implementation plans are not needed.

R3. The Planning Authority and Transmission Planner shall each document the results of its Reliability Assessments and corrective plans and shall annually provide the results to its respective Regional Reliability Organization(s), as required by the Regional Reliability Organization.

C. Measures

M1. The Planning Authority and Transmission Planner shall have a valid assessment and corrective plans as specified in Reliability Standard TPL-002-0_R1 and TPL-002-0_R2.

M2. The Planning Authority and Transmission Planner shall have evidence it reported documentation of results of its reliability assessments and corrective plans per Reliability Standard TPL-002-0_R3.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Monitoring Responsibility

Compliance Monitor: Regional Reliability Organizations.
Each Compliance Monitor shall report compliance and violations to NERC via the NERC Compliance Reporting Process.

1.2. Compliance Monitoring Period and Reset Timeframe

Annually.

1.3. Data Retention

None specified.

1.4. Additional Compliance Information

None.

2. Levels of Non-Compliance

2.1. Level 1: Not applicable.

2.2. Level 2: A valid assessment and corrective plan for the longer-term planning horizon is not available.

2.3. Level 3: Not applicable.

2.4. Level 4: A valid assessment and corrective plan for the near-term planning horizon is not available.

E. Regional Differences

1. None identified.

Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0a	October 23, 2008	Added Appendix 1 – Interpretation of TPL-002-0 Requirements R1.3.2 and R1.3.12 and TPL-003-0 Requirements R1.3.2 and R1.3.12 for Ameren and MISO	Revised
0b	November 5, 2009	Added Appendix 2 – Interpretation of R1.3.10 approved by BOT on November 5, 2009	Addition

Table I. Transmission System Standards — Normal and Emergency Conditions

Category	Contingencies	System Limits or Impacts		
	Initiating Event(s) and Contingency Element(s)	System Stable and both Thermal and Voltage Limits within Applicable Rating [a]	Loss of Demand or Curtailed Firm Transfers	Cascading Outages
A No Contingencies	All Facilities in Service	Yes	No	No
B Event resulting in the loss of a single element.	Single Line Ground (SLG) or 3-Phase (3Ø) Fault, with Normal Clearing: 1. Generator 2. Transmission Circuit 3. Transformer Loss of an Element without a Fault.	Yes Yes Yes Yes	No [b] No [b] No [b] No [b]	No No No No
	Single Pole Block, Normal Clearing[e]: 4. Single Pole (dc) Line	Yes	No[b]	No
C Event(s) resulting in the loss of two or more (multiple) elements.	SLG Fault, with Normal Clearing[e]: 1. Bus Section 2. Breaker (failure or internal Fault)	Yes Yes	Planned/ Controlled[c] Planned/ Controlled[c]	No No
	SLG or 3Ø Fault, with Normal Clearing[e], Manual System Adjustments, followed by another SLG or 3Ø Fault, with Normal Clearing[e]: 3. Category B (B1, B2, B3, or B4) contingency, manual system adjustments, followed by another Category B (B1, B2, B3, or B4) contingency	Yes	Planned/ Controlled[c]	No
	Bipolar Block, with Normal Clearing[e]: 4. Bipolar (dc) Line Fault (non 3Ø), with Normal Clearing[e]: 5. Any two circuits of a multiple circuit towerline[f]	Yes Yes	Planned/ Controlled[c] Planned/ Controlled[c]	No No
	SLG Fault, with Delayed Clearing[e] (stuck breaker or protection system failure): 6. Generator 7. Transformer 8. Transmission Circuit 9. Bus Section	Yes Yes Yes Yes	Planned/ Controlled[c] Planned/ Controlled[c] Planned/ Controlled[c] Planned/ Controlled[c]	No No No No

D[d] Extreme event resulting in two or more (multiple) elements removed or Cascading out of service	3Ø Fault, with Delayed Clearing[e] (stuck breaker or protection system failure): 1. Generator 2. Transmission Circuit 3. Transformer 4. Bus Section 3Ø Fault, with Normal Clearing[e]: 5. Breaker (failure or internal Fault) 6. Loss of towerline with three or more circuits 7. All transmission lines on a common right-of way 8. Loss of a substation (one voltage level plus transformers) 9. Loss of a switching station (one voltage level plus transformers) 10. Loss of all generating units at a station 11. Loss of a large Load or major Load center 12. Failure of a fully redundant Special Protection System (or remedial action scheme) to operate when required 13. Operation, partial operation, or misoperation of a fully redundant Special Protection System (or Remedial Action Scheme) in response to an event or abnormal system condition for which it was not intended to operate 14. Impact of severe power swings or oscillations from Disturbances in another Regional Reliability Organization.	Evaluate for risks and consequences. ▪ May involve substantial loss of customer Demand and generation in a widespread area or areas. ▪ Portions or all of the interconnected systems may or may not achieve a new, stable operating point. ▪ Evaluation of these events may require joint studies with neighboring systems.

a) Applicable rating refers to the applicable Normal and Emergency facility thermal Rating or system voltage limit as determined and consistently applied by the system or facility owner. Applicable Ratings may include Emergency Ratings applicable for short durations as required to permit operating steps necessary to maintain system control. All Ratings must be established consistent with applicable NERC Reliability Standards addressing Facility Ratings.

b) Planned or controlled interruption of electric supply to radial customers or some local Network customers, connected to or supplied by the Faulted element or by the affected area, may occur in certain areas without impacting the overall reliability of the interconnected transmission systems. To prepare for the next contingency, system adjustments are permitted, including curtailments of contracted Firm (non-recallable reserved) electric power Transfers.

c) Depending on system design and expected system impacts, the controlled interruption of electric supply to customers (load shedding), the planned removal from service of certain generators, and/or the curtailment of contracted Firm (non-recallable reserved) electric power Transfers may be necessary to maintain the overall reliability of the interconnected transmission systems.

d) A number of extreme contingencies that are listed under Category D and judged to be critical by the transmission planning entity(ies) will be selected for evaluation. It is not expected that all possible facility outages under each listed contingency of Category D will be evaluated.

e) Normal clearing is when the protection system operates as designed and the Fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a Fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer, and not because of an intentional design delay.

f) System assessments may exclude these events where multiple circuit towers are used over short distances (e.g., station entrance, river crossings) in accordance with Regional exemption criteria.

Appendix 1

Interpretation of TPL-002-0 Requirements R1.3.2 and R1.3.12 and TPL-003-0 Requirements R1.3.2 and R1.3.12 for Ameren and MISO

NERC received two requests for interpretation of identical requirements (Requirements R1.3.2 and R1.3.12) in TPL-002-0 and TPL-003-0 from the Midwest ISO and Ameren. These requirements state:

TPL-002-0:

[To be valid, the Planning Authority and Transmission Planner assessments shall:]

R1.3 Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).

R1.3.2 Cover critical system conditions and study years as deemed appropriate by the responsible entity.

R1.3.12 Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.

TPL-003-0:

[To be valid, the Planning Authority and Transmission Planner assessments shall:]

R1.3 Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category C of Table 1 (multiple contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).

R1.3.2 Cover critical system conditions and study years as deemed appropriate by the responsible entity.

R1.3.12 Include the planned (including maintenance) outage of any bulk electric equipment (including protection systems or their components) at those demand levels for which planned (including maintenance) outages are performed.

Requirement R1.3.2

Request for Interpretation of TPL-002-0 and TPL-003-0 Requirement R1.3.2 Received from Ameren on July 25, 2007:

Ameren specifically requests clarification on the phrase, 'critical system conditions' in R1.3.2. Ameren asks if compliance with R1.3.2 requires multiple contingent generating unit Outages as part of possible generation dispatch scenarios describing critical system conditions for which the system shall be planned and modeled in accordance with the contingency definitions included in Table 1.

Request for Interpretation of TPL-002-0 and TPL-003-0 Requirement R1.3.2 Received from MISO on August 9, 2007:

MISO asks if the TPL standards require that any specific dispatch be applied, other than one that is representative of supply of firm demand and transmission service commitments, in the modeling of system contingencies specified in Table 1 in the TPL standards.

MISO then asks if a variety of possible dispatch patterns should be included in planning analyses including a probabilistically based dispatch that is representative of generation deficiency scenarios, would it be an appropriate application of the TPL standard to apply the transmission contingency conditions in Category B of Table 1 to these possible dispatch pattern.

The following interpretation of TPL-002-0 and TPL-003-0 Requirement R1.3.2 was developed by the NERC Planning Committee on March 13, 2008:

The selection of a credible generation dispatch for the modeling of critical system conditions is within the discretion of the Planning Authority. The Planning Authority was renamed "Planning Coordinator" (PC) in the Functional Model dated February 13, 2007. (TPL -002 and -003 use the former "Planning Authority" name, and the Functional Model terminology was a change in name only and did not affect responsibilities.)

– Under the Functional Model, the Planning Coordinator "Provides and informs Resource Planners, Transmission Planners, and adjacent Planning Coordinators of the methodologies and tools for the simulation of the transmission system" while the Transmission Planner "Receives from the Planning Coordinator methodologies and tools for the analysis and development of transmission expansion plans." A PC's selection of "critical system conditions" and its associated generation dispatch falls within the purview of "methodology."

Furthermore, consistent with this interpretation, a Planning Coordinator would formulate critical system conditions that may involve a range of critical generator unit outages as part of the possible generator dispatch scenarios.

Both TPL-002-0 and TPL-003-0 have a similar measure M1:

> **M1.** The Planning Authority and Transmission Planner shall have a valid assessment and corrective plans as specified in Reliability Standard TPL-002-0_R1 [or TPL-003-0_R1] and TPL-002-0_R2 [or TPL-003-0_R2]."

The Regional Reliability Organization (RRO) is named as the Compliance Monitor in both standards. Pursuant to Federal Energy Regulatory Commission (FERC) Order 693, FERC eliminated the RRO as the appropriate Compliance Monitor for standards and replaced it with the Regional Entity (RE). See paragraph 157 of Order 693. Although the referenced TPL standards still include the reference to the RRO, to be consistent with Order 693, the RRO is replaced by the RE as the Compliance Monitor for this interpretation. As the Compliance Monitor, the RE determines what a "valid assessment" means when evaluating studies based upon specific sub-requirements in R1.3 selected by the Planning Coordinator and the Transmission Planner. If a PC has Transmission Planners in more than one region, the REs must coordinate among themselves on compliance matters.

Requirement R1.3.12

Request for Interpretation of TPL-002-0 and TPL-003-0 Requirement R1.3.12 Received from Ameren on July 25, 2007:

Ameren also asks how the inclusion of planned outages should be interpreted with respect to the contingency definitions specified in Table 1 for Categories B and C. Specifically, Ameren asks if R1.3.12 requires that the system be planned to be operated during those conditions associated with planned outages consistent with the performance requirements described in Table 1 plus any unidentified outage.

Request for Interpretation of TPL-002-0 and TPL-003-0 Requirement R1.3.12 Received from MISO on August 9, 2007:

MISO asks if the term "planned outages" means only already known/scheduled planned outages that may continue into the planning horizon, or does it include potential planned outages not yet scheduled that may occur at those demand levels for which planned (including maintenance) outages are performed?

If the requirement does include not yet scheduled but potential planned outages that could occur in the planning horizon, is the following a proper interpretation of this provision?

The system is adequately planned and in accordance with the standard if, in order for a system operator to potentially schedule such a planned outage on the future planned system, planning studies show that a system adjustment (load shed, re-dispatch of generating units in the interconnection, or system reconfiguration) would be required concurrent with taking such a planned outage in order to prepare for a Category B contingency (single element forced out of service)? In other words, should the system in effect be planned to be operated as for a Category C3 n-2 event, even though the first event is a planned base condition?

If the requirement is intended to mean only known and scheduled planned outages that will occur or may continue into the planning horizon, is this interpretation consistent with the original interpretation by NERC of the standard as provided by NERC in response to industry questions in the Phase I development of this standard1?

The following interpretation of TPL-002-0 and TPL-003-0 Requirement R1.3.12 was developed by the NERC Planning Committee on March 13, 2008:

This provision was not previously interpreted by NERC since its approval by FERC and other regulatory authorities. TPL-002-0 and TPL-003-0 explicitly provide that the inclusion of planned (including maintenance) outages of any bulk electric equipment at demand levels for which the planned outages are required. For studies that include planned outages, compliance with the contingency assessment for TPL-002-0 and TPL-003-0 as outlined in Table 1 would include any necessary system adjustments which might be required to accommodate planned outages since a planned outage is not a "contingency" as defined in the *NERC Glossary of Terms Used in Standards.*

Appendix 2

Requirement Number and Text of Requirement
R1.3. Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following **Category B of Table 1** (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s). **R1.3.10.** Include the effects of existing and planned protection systems, including any backup or redundant systems.
Background Information for Interpretation
Requirement R1.3 and sub-requirement R1.3.10 of standard TPL-002-0a contain three key obligations: 1. That the assessment is supported by "study and/or system simulation testing that addresses each the following categories, showing system performance following Category B of Table 1 (single contingencies)." 2. "…these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s)." 3. "Include the effects of existing and planned protection systems, including any backup or redundant systems." *Category B of Table 1 (single Contingencies) specifies:* Single Line Ground (SLG) or 3-Phase (3Ø) Fault, with Normal Clearing: 1. Generator 2. Transmission Circuit 3. Transformer Loss of an Element without a Fault. Single Pole Block, Normal Clearing[e]: 4. Single Pole (dc) Line *Note e specifies*: e) Normal Clearing is when the protection system operates as designed and the Fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a Fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer, and not because of an intentional design delay. The NERC Glossary of Terms defines Normal Clearing as "A protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protection systems."

Conclusion
TPL-002-0a requires that System studies or simulations be made to assess the impact of single Contingency operation with Normal Clearing. TPL-002-0a R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. This standard does not require an assessment of the Transmission System performance due to a Protection System failure or Protection System misoperation. Protection System failure or Protection System misoperation is addressed in TPL-003-0 — System Performance following Loss of Two or More Bulk Electric System Elements (Category C) and TPL-004-0 — System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D). TPL-002-0a R1.3.10 does not require simulating anything other than Normal Clearing when assessing the impact of a Single Line Ground (SLG) or 3-Phase (3Ø) Fault on the performance of the Transmission System. **In regards to PacifiCorp's comments on the material impact associated with this interpretation, the interpretation team has the following comment:** Requirement R2.1 requires "a written summary of plans to achieve the required system performance," including a schedule for implementation and an expected in-service date that considers lead times necessary to implement the plan. Failure to provide such summary may lead to noncompliance that could result in penalties and sanctions.

Exhibit C

Complete Development Record of the Interpretation

TPL-002-0b — System Performance Following Loss of a Single Bulk Electric System Element (Category B), Requirement R1.3.10

Project 2009-14

Interpretation – TPL-002-0 – System Performance Following Loss of a Single Bulk Electric System Element (Category B) by PacifiCorp

Status

An interpretation of TPL-002-0 Requirement R1.3.10 by PacifiCorp has been submitted. The ballot pool approved the interpretation. The interpretation was approved by the NERC Board of Trustees on November 5, 2009 and will be submitted to FERC for approval.

Summary:

The request asks to clarify the following: Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations? Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures? Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I - Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

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.

Draft	Action	Dates	Results	Consideration of Comments
PacifiCorp Request for Interpretation of TPL-002-0, Requirement R1.3.10 Interpretation (2) Request for Interpretation (3)	Recirculation ballot Info>> (8) | Vote>>	07/24/09 - 08/06/09 (closed)	Summary>> (9) Full Record>> (10)	
	Initial Ballot Info>> (4) | Vote>>	06/01/09 - 06/11/09 (closed)	Summary>> (5) Full Record>> (6)	Consideration of Comments>> (7)
	Pre-ballot Review Info>> (1) | Join>>	04/30/09 - 06/01/09 (closed)		

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Standards Announcement

Ballot Pool and Pre-ballot Window
April 30–June 1, 2009

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

Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp (Project 2009-14)
An interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element (Category B) Requirement R1.3.10 for PacifiCorp is posted for a 30-day pre-ballot review. Registered Ballot Body members may join the ballot pool to be eligible to vote on this interpretation **until 8 a.m. EDT on June 1, 2009**.

During the pre-ballot window, members of the ballot pool may communicate with one another by using their "ballot pool list server." (Once the balloting begins, ballot pool members are prohibited from using the ballot pool list servers.) The list server for this ballot pool is: bp-2009-14_RFI_PacifiCo_in

Project Background
The request asks to clarify the following:

- Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?
- Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?
- Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I — Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

The request and interpretation can be found on the project page:
http://www.nerc.com/filez/standards/Project2009-14_Interpretation_TPL-002-0_PacifiCorp.html

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

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

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

Request for an Interpretation of a Reliability Standard

Date submitted: **January 12, 2009**

Contact information for person requesting the interpretation:

Name: **Sandra Shaffer**

Organization: **PacifiCorp**

Telephone: **503.813.5219**

E-mail: **sandra.shaffer@pacificorp.com**

Identify the standard that needs clarification:

TPL-002-A

Standard Title: **System Performance Following Loss of a Single Bulk Electric System Element (Category B)**

Identify specifically what needs clarification (If a category is not applicable, please leave it blank):

Requirement Number and Text of Requirement: **R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.**

Clarification needed: **Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?**

Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system miss-operations and failures?

Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I - Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?System Performance Following Loss of a Single Bulk Electric System Element (Category B)

Identify the material impact associated with this interpretation:

If TPL-002-0 R1.3.10 requires that planning for Category B contingencies must assume failure or misoperation of all existing and planned protection systems, protection system failures previously identified as Category C 6-9 contingencies or Category D 1-4

contingencies would now become Category B contingencies, and would be required to meet this higher standard for both SLG faults and 3-Phase faults. PacifiCorp believes this would result in the need for Transmission Providers to significantly increase their investment in the BES without a proportional improvement in overall transmission system reliability

Project 2009-14: Response to Request for an Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp

The following interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element was developed by a subset of the Assess Transmission Future Needs Standards Drafting Team.

Requirement Number and Text of Requirement

R1.3. Be supported by a current or past study and/or system simulation testing that addresses each of the following categories, showing system performance following Category B of Table 1 (single contingencies). The specific elements selected (from each of the following categories) for inclusion in these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s).

> **R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.**

Background Information for Interpretation

Requirement R1.3 and sub-requirement R1.3.10 of standard TPL-002-0a contain three key obligations:

1. **That the assessment is supported by "study and/or system simulation testing that addresses each the following categories, showing system performance following Category B of Table 1 (single contingencies)."**
2. **"...these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s)."**
3. **"Include the effects of existing and planned protection systems, including any backup or redundant systems."**

Category B of Table 1 (single Contingencies) specifies:

Single Line Ground (SLG) or 3-Phase (3Ø) Fault, with Normal Clearing:

1. **Generator**
2. **Transmission Circuit**
3. **Transformer**

Loss of an Element without a Fault.

Single Pole Block, Normal Clearing[e]:

4. **Single Pole (dc) Line**

***Note e specifies*:**

e) Normal Clearing is when the protection system operates as designed and the Fault is cleared in the time normally expected with proper functioning of the installed protection systems. Delayed clearing of a Fault is due to failure of any protection system component such as a relay, circuit breaker, or current transformer, and not because of an intentional design delay.

The NERC Glossary of Terms defines Normal Clearing as "A protection system operates as

designed and the fault is cleared in the time normally expected with proper functioning of the installed protection systems."

Conclusion

TPL-002-0a requires that System studies or simulations be made to assess the impact of single Contingency operation with Normal Clearing. TPL-002-0a R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations.

This standard does not require an assessment of the Transmission System performance due to a Protection System failure or Protection System misoperation. Protection System failure or Protection System misoperation is addressed in TPL-003-0 — System Performance following Loss of Two or More Bulk Electric System Elements (Category C) and TPL-004-0 — System Performance Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D).

TPL-002-0a R1.3.10 does not require simulating anything other than Normal Clearing when assessing the impact of a Single Line Ground (SLG) or 3-Phase (3Ø) Fault on the performance of the Transmission System.

In regards to PacifiCorp's comments on the material impact associated with this interpretation, the interpretation team has the following comment:

Requirement R2.1 requires "a written summary of plans to achieve the required system performance," including a schedule for implementation and an expected in-service date that considers lead times necessary to implement the plan. Failure to provide such summary may lead to noncompliance that could result in penalties and sanctions.

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When completed, email this form to:
maureen.long@nerc.net
For questions about this form or for assistance in completing the form, call Maureen Long at 813-468-5998.

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

Request for an Interpretation of a Reliability Standard

Date submitted: January 12, 2009

Contact information for person requesting the interpretation:

Name: Sandra Shaffer

Organization: PacifiCorp

Telephone: 503.813.5219

E-mail: sandra.shaffer@pacificorp.com

Identify the standard that needs clarification:

Standard Number (include version number): TPL-002-0

(example: PRC-001-1)

Standard Title: System Performance Following Loss of a Single Bulk Electric System Element (Category B)

Identify specifically what needs clarification:

Requirement Number and Text of Requirement: R1.3.10. Include the effects of existing and planned protection systems, including any backup or redundant systems.

Clarification needed: Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?

Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?

Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I - Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

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.

If TPL-002-0 R1.3.10 requires that planning for Category B contingencies must assume

failure or misoperation of all existing and planned protection systems, protection system failures previously identified as Category C 6-9 contingencies or Category D 1-4 contingencies would now become Category B contingencies, and would be required to meet this higher standard for both SLG faults and 3-Phase faults. PacifiCorp believes this would result in the need for Transmission Providers to significantly increase their investment in the BES without a proportional improvement in overall transmission system reliability.

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Standards Announcement

Initial Ballot Window Open

June 1–11, 2009

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

Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp (Project 2009-14)

An initial ballot window for an interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element (Category B) Requirement R1.3.10 for PacifiCorp is now open **until 8 p.m. EDT on June 11, 2009**.

Project Background

The request asks to clarify the following:

- Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?
- Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?
- Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I — Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

The request and interpretation can be found on the project page:
http://www.nerc.com/filez/standards/Project2009-14_Interpretation_TPL-002-0_PacifiCorp.html

Standards Development Process

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

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

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Standards Announcement
Initial Ballot Results

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

Project 2009-14: Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp
The initial ballot for an for an interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element (Category B) Requirement R1.3.10 for PacifiCorp ended on June 11, 2009.

Ballot Results
Voting statistics are listed below, and the Ballot Results Web page provides a link to the detailed results:

Quorum:	87.10%
Approval:	95.71%

Since at least one negative ballot included a comment, these results are not final. A second (or recirculation) ballot must be conducted. Ballot criteria details are listed at the end of the announcement.

Next Steps
As part of the recirculation ballot process, the drafting team must draft and post responses to voter comments. The drafting team will also determine whether or not to make revisions to the balloted item(s). Should the team decide to make revisions, the revised item(s) will return to the initial ballot phase.

Project Background
PacifiCorp requested clarification for the following items:

- Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?
- Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?
- Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I — Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

Project page: http://www.nerc.com/filez/standards/Project2009-14_Interpretation_TPL-002-0_PacifiCorp.html

Standards Development Process

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

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

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

Ballot Results	
Ballot Name:	Project 2009-14 Interpretation - PacifiCorp - TPL-002-0a_in
Ballot Period:	6/1/2009 - 6/11/2009
Ballot Type:	Initial
Total # Votes:	189
Total Ballot Pool:	217
Quorum:	87.10 % The Quorum has been reached
Weighted Segment Vote:	95.71 %
Ballot Results:	The standard will proceed to recirculation ballot.

Summary of Ballot Results

Segment	Ballot Pool	Segment Weight	Affirmative # Votes	Affirmative Fraction	Negative # Votes	Negative Fraction	Abstain # Votes	No Vote
1 - Segment 1.	65	1	50	0.943	3	0.057	4	8
2 - Segment 2.	11	1	10	1	0	0	0	1
3 - Segment 3.	52	1	41	0.911	4	0.089	0	7
4 - Segment 4.	11	0.7	7	0.7	0	0	4	0
5 - Segment 5.	36	1	28	0.933	2	0.067	0	6
6 - Segment 6.	24	1	19	1	0	0	0	5
7 - Segment 7.	0	0	0	0	0	0	0	0
8 - Segment 8.	3	0.3	3	0.3	0	0	0	0
9 - Segment 9.	7	0.6	6	0.6	0	0	1	0
10 - Segment 10.	8	0.7	6	0.6	1	0.1	0	1
Totals	217	7.3	170	6.987	10	0.313	9	28

Individual Ballot Pool Results

Segment	Organization	Member	Ballot	Comments
1	Ameren Services	Kirit S. Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Affirmative	View
1	American Transmission Company, LLC	Jason Shaver	Affirmative	
1	Arizona Public Service Co.	Robert D Smith	Affirmative	
1	Avista Corp.	Scott Kinney	Affirmative	
1	BC Transmission Corporation	Gordon Rawlings	Affirmative	
1	Black Hills Corp	Eric Egge	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	View

1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Affirmative	
1	CenterPoint Energy	Paul Rocha	Affirmative	
1	Central Maine Power Company	Brian Conroy	Affirmative	
1	City Utilities of Springfield, Missouri	Jeff Knottek	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Affirmative	
1	Dominion Virginia Power	William L. Thompson	Affirmative	View
1	Duke Energy Carolina	Douglas E. Hils	Affirmative	
1	E.ON U.S. LLC	Larry Monday	Affirmative	
1	El Paso Electric Company	Dennis Malone	Affirmative	
1	Entergy Corporation	George R. Bartlett	Affirmative	
1	Exelon Energy	John J. Blazekovich	Affirmative	
1	Farmington Electric Utility System	Alan Glazner	Negative	
1	FirstEnergy Energy Delivery	Robert Martinko	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Abstain	
1	Florida Power & Light Co.	Hector Sanchez	Affirmative	
1	Gainesville Regional Utilities	Luther E. Fair	Abstain	
1	Georgia Transmission Corporation	Harold Taylor, II	Affirmative	
1	Hoosier Energy Rural Electric Cooperative, Inc.	Damon Holladay	Affirmative	
1	Hydro One Networks, Inc.	Ajay Garg	Affirmative	
1	Idaho Power Company	Ronald D. Schellberg	Affirmative	
1	ITC Transmission	Elizabeth Howell	Affirmative	
1	JEA	Ted E. Hobson	Affirmative	
1	Kansas City Power & Light Co.	Michael Gammon		
1	Kissimmee Utility Authority	Joe B Watson	Abstain	
1	Lakeland Electric	Larry E Watt	Affirmative	
1	Lee County Electric Cooperative	Rodney Hawkins	Abstain	
1	Lincoln Electric System	Doug Bantam	Affirmative	
1	Manitoba Hydro	Michelle Rheault	Affirmative	
1	MEAG Power	Danny Dees	Negative	
1	National Grid	Manuel Couto		
1	New York Power Authority	Ralph Rufrano		
1	Northern Indiana Public Service Co.	Kevin M Largura	Affirmative	
1	Ohio Valley Electric Corp.	Robert Mattey	Affirmative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber		
1	Omaha Public Power District	lorees Tadros		
1	Oncor Electric Delivery	Charles W. Jenkins		
1	Orlando Utilities Commission	Brad Chase	Negative	View
1	Otter Tail Power Company	Lawrence R. Larson	Affirmative	
1	Pacific Gas and Electric Company	Chifong L. Thomas	Affirmative	
1	PacifiCorp	Mark Sampson	Affirmative	
1	Potomac Electric Power Co.	Richard J. Kafka	Affirmative	View
1	PowerSouth Energy Cooperative	Larry D Avery	Affirmative	
1	PP&L, Inc.	Ray Mammarella	Affirmative	
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	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	Affirmative	
1	Southern Company Services, Inc.	Horace Stephen Williamson		
1	Southwest Transmission Cooperative, Inc.	James L. Jones	Affirmative	
1	Tucson Electric Power Co.	John Tolo	Affirmative	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Xcel Energy, Inc.	Gregory L. Pieper	Affirmative	
2	Alberta Electric System Operator	Anita Lee	Affirmative	
2	British Columbia Transmission Corporation	Phil Park	Affirmative	
2	California ISO	Greg Tillitson	Affirmative	
2	Electric Reliability Council of Texas, Inc.	Chuck B Manning	Affirmative	
2	Independent Electricity System Operator	Kim Warren	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
2	Midwest ISO, Inc.	Terry Bilke		
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	
2	Southwest Power Pool	Charles H Yeung	Affirmative	
3	Ameren Services	Mark Peters	Affirmative	
3	American Electric Power	Raj Rana	Affirmative	
3	Arizona Public Service Co.	Thomas R. Glock	Affirmative	
3	Atlantic City Electric Company	James V. Petrella	Affirmative	
3	Avista Corp.	Robert Lafferty		
3	BC Hydro and Power Authority	Pat G. Harrington	Negative	View
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	View
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	Cowlitz County PUD	Russell A Noble	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Detroit Edison Company	Kent Kujala	Affirmative	
3	Dominion Resources, Inc.	Jalal (John) Babik	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Affirmative	View
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		
3	Gulf Power Company	Gwen S Frazier		
3	Hydro One Networks, Inc.	Michael D. Penstone	Affirmative	
3	JEA	Garry Baker	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke		
3	Kissimmee Utility Authority	Gregory David Woessner		
3	Lakeland Electric	Mace Hunter	Affirmative	
3	Lincoln Electric System	Bruce Merrill	Affirmative	
3	Louisville Gas and Electric Co.	Charles A. Freibert	Affirmative	
3	MidAmerican Energy Co.	Thomas C. Mielnik	Affirmative	
3	Mississippi Power	Don Horsley		
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Negative	
3	New York Power Authority	Michael Lupo	Affirmative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Affirmative	
3	Northern Indiana Public Service Co.	William SeDoris	Negative	
3	Orlando Utilities Commission	Ballard Keith Mutters	Negative	View
3	PacifiCorp	John Apperson	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. 1 of Chelan County	Kenneth R. Johnson	Affirmative	
3	Public Utility District No. 2 of Grant County	Greg Lange	Affirmative	
3	Salt River Project	John T. Underhill	Affirmative	
3	Santee Cooper	Zack Dusenbury	Affirmative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	South Carolina Electric & Gas Co.	Hubert C. Young	Affirmative	View
3	Southern California Edison Co.	David Schiada	Affirmative	
3	Tampa Electric Co.	Ronald L. Donahey	Affirmative	
3	Turlock Irrigation District	Casey Hashimoto		
3	Xcel Energy, Inc.	Michael Ibold	Affirmative	
4	Alliant Energy Corp. Services, Inc.	Kenneth Goldsmith	Abstain	
4	American Municipal Power - Ohio	Kevin L Holt	Abstain	
4	Consumers Energy	David Frank Ronk	Affirmative	
4	Detroit Edison Company	Daniel Herring	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Abstain	
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Public Utility District No. 1 of Snohomish County	John D. Martinsen	Affirmative	View
4	Sacramento Municipal Utility District	Dilip Mahendra	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R. Wallace	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Abstain	
5	AEP Service Corp.	Brock Ondayko	Affirmative	View

5	Amerenue	Sam Dwyer	Affirmative	
5	Avista Corp.	Edward F. Groce	Affirmative	
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	View
5	City of Tallahassee	Alan Gale	Affirmative	
5	Colmac Clarion/Piney Creek LP	Harvie D. Beavers	Affirmative	
5	Consumers Energy	James B Lewis	Affirmative	
5	Detroit Edison Company	Ronald W. Bauer	Affirmative	
5	Dominion Resources, Inc.	Mike Garton	Affirmative	
5	Duke Energy	Robert Smith		
5	East Kentucky Power Coop.	Stephen Ricker		
5	Entergy Corporation	Stanley M Jaskot	Negative	View
5	Exelon Nuclear	Michael Korchynsky	Affirmative	
5	FirstEnergy Solutions	Kenneth Dresner	Affirmative	
5	FPL Energy	Benjamin Church	Affirmative	
5	JEA	Donald Gilbert		
5	Kansas City Power & Light Co.	Scott Heidtbrink	Affirmative	
5	Lincoln Electric System	Dennis Florom	Affirmative	
5	Louisville Gas and Electric Co.	Charlie Martin	Affirmative	
5	Manitoba Hydro	Mark Aikens	Affirmative	
5	New York Power Authority	Gerald Mannarino	Affirmative	
5	Northern Indiana Public Service Co.	Michael K Wilkerson	Affirmative	
5	Northern States Power Co.	Liam Noailles	Affirmative	
5	Orlando Utilities Commission	Richard Kinas	Negative	View
5	PacifiCorp Energy	David Godfrey	Affirmative	View
5	Portland General Electric Co.	Gary L Tingley		
5	PPL Generation LLC	Mark A. Heimbach	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis		
5	PSEG Power LLC	Thomas Piascik	Affirmative	
5	Salt River Project	Glen Reeves	Affirmative	
5	Seattle City Light	Michael J. Haynes	Affirmative	
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins	Affirmative	
5	Southeastern Power Administration	Douglas Spencer	Affirmative	
5	Tenaska, Inc.	Scott M. Helyer	Affirmative	
5	U.S. Army Corps of Engineers Northwestern Division	Karl Bryan	Affirmative	
5	U.S. Bureau of Reclamation	Martin Bauer		
6	AEP Marketing	Edward P. Cox	Affirmative	View
6	Ameren Energy Marketing Co.	Jennifer Richardson	Affirmative	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	View
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Affirmative	
6	Dominion Resources, Inc.	Louis S Slade	Affirmative	View
6	Duke Energy Carolina	Walter Yeager		
6	Entergy Services, Inc.	Terri F Benoit	Affirmative	
6	Exelon Power Team	Pulin Shah	Affirmative	
6	FirstEnergy Solutions	Mark S Travaglianti	Affirmative	
6	Kansas City Power & Light Co.	Thomas Saitta		
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Louisville Gas and Electric Co.	Daryn Barker	Affirmative	
6	Manitoba Hydro	Daniel Prowse	Affirmative	
6	New York Power Authority	Thomas Papadopoulos	Affirmative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Affirmative	
6	Progress Energy	James Eckelkamp		
6	PSEG Energy Resources & Trade LLC	James D. Hebson	Affirmative	
6	Public Utility District No. 1 of Chelan County	Hugh A. Owen	Affirmative	
6	Salt River Project	Mike Hummel	Affirmative	
6	Santee Cooper	Suzanne Ritter	Affirmative	
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak		
6	Southern California Edison Co.	Marcus V Lotto	Affirmative	
6	Western Area Power Administration - UGP Marketing	John Stonebarger	Affirmative	
6	Xcel Energy, Inc.	David F. Lemmons		
8	Edward C Stein	Edward C Stein	Affirmative	
8	JDRJC Associates	Jim D. Cyrulewski	Affirmative	
8	Volkmann Consulting, Inc.	Terry Volkmann	Affirmative	
9	California Energy Commission	William Mitchell Chamberlain	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald E. Nelson	Affirmative	
9	Maine Public Utilities Commission	Jacob A McDermott	Abstain	

9	National Association of Regulatory Utility Commissioners	Diane J. Barney	Affirmative	
9	New York State Department of Public Service	Thomas G Dvorsky	Affirmative	
9	Oregon Public Utility Commission	Jerome Murray	Affirmative	
9	Public Service Commission of South Carolina	Philip Riley	Affirmative	
10	Electric Reliability Council of Texas, Inc.	Kent Saathoff	Affirmative	
10	Florida Reliability Coordinating Council	Linda Campbell	Affirmative	
10	Midwest Reliability Organization	Dan R Schoenecker		
10	New York State Reliability Council	Alan Adamson	Affirmative	
10	Northeast Power Coordinating Council, Inc.	Guy V. Zito	Affirmative	
10	ReliabilityFirst Corporation	Jacquie Smith	Negative	View
10	SERC Reliability Corporation	Carter B. Edge	Affirmative	
10	Western Electricity Coordinating Council	Louise McCarren	Affirmative	

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NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments on Initial Ballot — Interpretation of TPL-002-0a for PacifiCorp (Project 2009-14)

Summary Consideration:

The interpretation drafting team has reviewed the comments received from the first ballot of the interpretation. For the most part, these commenters agreed with the drafting team's interpretation and were merely suggesting the addition of explanatory text to the interpretation statements. While the interpretation drafting team is generally in agreement with the additional text suggested by some commenters, it is the belief of the team that the suggested text does not change the interpretation or add to its comprehension. Therefore, no changes have been made to the interpretation language posted for the first ballot. .

If you feel that the drafting team overlooked your comments, please let us know immediately. Our goal is to give every comment serious consideration in this process. If you feel there has been an error or omission, you can contact the Vice President and Director of Standards, Gerry Adamski, at 609-452-8060 or at gerry.adamski@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[1]

Voter	Entity	Segment	Vote	Comment
Rebecca Berdahl	Bonneville Power Administration	3	Affirmative	BPA supports the technical discussion developed by Duke Energy as attached: TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems,

[1] The appeals process is in the Reliability Standards Development Procedure: http://www.nerc.com/files/RSDP_V6_1_12Mar07.pdf.

Voter	Entity	Segment	Vote	Comment
				including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay (which will have an intentional time delay relative to the primary relay) does not come into play because the primary relays will operate to clear the fault before the backup relays, with the designed intentional time delay, operate. In the context of R1.3.10, there is no effect of backup relaying because the primary or redundant protection will act to properly clear the fault. Requirement 1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. Faulted elements may be removed by primary, backup or redundant protection systems; however, for Category B, the Protection Systems considered must be limited to those that act only under Normal Clearing conditions. To interpret TPL-002 in another way, i.e., to take failure of the primary protection into account at the Category B level in Table I, would mean that all protection system components theoretically subject to failures, unless mitigated by redundancy, would need to be modeled as having failed. This would in turn mean that proper functioning of the Normal Clearing protection scheme as designed would never be analyzed, a clearly illogical result, and not the result that Category B was intended to simulate The study of the reliability of protections systems and potential failure of their components should be the subject of a separate standard or requirements, and there is much to consider in establishing those. In that respect, Duke supports the current NERC Standard Authorization Request (SAR) for Reliability of Protection Systems.

Voter	Entity	Segment	Vote	Comment
Louis S Slade	Dominion Resources, Inc.	6	Affirmative	Dominion agrees with the draft interpretation in that TPL-002 and the associated Category B assessments should be made as stated with Normal Clearing of the protection systems. Normal clearing times are when the relays operate as designed. In the current TPL standards, TPL-002 Category B events are assessments of single contingency events. To consider anything beyond Normal Clearing times for protection systems would move those assessments into TPL-003 Category C events which are reserved for multiple contingencies. Specifically, TPL-003 categories C6 through C9 require the assessment of delayed clearing or protection system failures. In addition, Dominion agrees with the additional technical support offered in the comments of Duke Energy and recommends that the drafting team include that support in the record of discussion of the proposed interpretation.
William L. Thompson	Dominion Virginia Power	1	Affirmative	Dominion Virginia Power agrees with the draft interpretation in that TPL-002 and the associated Category B assessments should be made as stated with Normal Clearing of the protection systems. Normal clearing times are when the relays operate as designed. In the current TPL standards, TPL-002 Category B events are assessments of single contingency events. To consider anything beyond Normal Clearing times for protection systems would move those assessments into TPL-003 Category C events which are reserved for multiple contingencies. Specifically, TPL-003 categories C6 through C9 require the assessment of delayed clearing or protection system failures. In addition, Dominion Virginia Power agrees with the additional technical support offered in the comments of Duke Energy and recommends that the drafting team include that support in the record of discussion of the proposed interpretation.
Stanley M Jaskot	Entergy Corporation	5	Negative	I aggree with the comments from Duke Energy

Voter	Entity	Segment	Vote	Comment
Pat G. Harrington	BC Hydro and Power Authority	3	Negative	I have cast a negative ballot because, although I agree with the interpretation proposed by the Standards Drafting Team (SDT), I believe that it would be worthwhile to provide a more detailed interpretation as suggested by Ed Ernst of Duke Energy in his 2009-May-28 email to the NERC Registered Ballot Body. This may avoid future requests for interpretation of this standard. I propose that the SDT consider the following wording for the interpretation in the next round of balloting: Conclusion TPL-002-0a requires that system studies or simulations be made to assess the impact of single contingencies with Normal Clearing. TPL-002 0a and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, [NERC, February 12, 2008 Glossary of Terms Used in Reliability Standards at page 11 (http://www.nerc.com/files/Glossary_12Feb08.pdf)]. Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper [NERC, PROTECTION SYSTEM RELIABILITY REDUNDANCY OF PROTECTION SYSTEM ELEMENTS 14 (Technical Paper) (2009; http://www.nerc.com/docs/standards/sar/Project2009-07_Tech_Paper_Reliability_of_Protection_Systems_2009Jan20.pdf).] states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. TPL-002-0a R1.3.10 does require that all elements expected to be removed from service through normal operation of the Protection Systems be removed in simulations. This standard does not require an assessment of the Transmission System performance due to a Protection System failure or Protection System misoperation. Protection System failure or Protection System misoperation is addressed in TPL-003-0 â€" System Performance following Loss of Two or More Bulk Electric System Elements (Category C) and TPL-004-0 â€" System Performance

Voter	Entity	Segment	Vote	Comment
				Following Extreme Events Resulting in the Loss of Two or More Bulk Electric System Elements (Category D). Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay (which will have an intentional time delay relative to the primary relay) does not come into play because the primary relays will operate to clear the fault before the backup relays, with the designed intentional time delay, operate. In the context of R1.3.10, there is no effect of backup relaying because the primary or redundant protection will act to properly clear the fault. Faulted elements may be removed by primary, backup or redundant protection systems; however, for Category B, the Protection Systems considered must be limited to those that act only under Normal Clearing conditions. TPL-002-0a R1.3.10 does not require simulating anything other than Normal Clearing when assessing the impact of a Single Line Ground (SLG) or 3-Phase (3Ã˜) Fault on the performance of the Transmission System. To interpret TPL-002 in another way, i.e., to take failure of the primary protection into account at the Category B level in Table I, would mean that all protection system components theoretically subject to failures, unless mitigated by redundancy, would need to be modeled as having failed. This would in turn mean that proper functioning of the Normal Clearing protection scheme as designed would never be analyzed, a clearly illogical result, and not the result that Category B was intended to simulate. In regards to PacifiCorp's comments on the material impact associated with this interpretation, the interpretation team has the following comment: Requirement R2.1 requires "a written summary of plans to achieve the required system performance," including a schedule for implementation and an expected in-service date that considers lead times necessary to implement the plan. Failure to provide such summary may lead to noncompliance that could result in penalties and sanctions. Thank you for considering this suggestion, -Pat Harrington, B.C. Hydro, Vancouver, Canada.

Voter	Entity	Segment	Vote	Comment
Richard J. Kafka	Potomac Electric Power Co.	1	Affirmative	Pepco Holdings supports the comments of Duke and supports the current NERC Standard Authorization Request (SAR) for Reliability of Protection Systems.
Hubert C. Young	South Carolina Electric & Gas Co.	3	Affirmative	SCE&G agrees with the comments submitted by Duke Energy on this matter.
John D. Martinsen	Public Utility District No. 1 of Snohomish County	4	Affirmative	Snohomish County Public Utility District agrees with the draft interpretation. The District also supports Duke's proposal to include additional technical support as part of the interpretation. However due to the current confusion with TPL-002-0a the District supports moving to the second/recirculation ballot if the interpretation is approved in this initial ballot, per the NERC Reliability Standards Development Procedure. The District also supports a new effort to address the inclusion of additional technical support material proposed by Duke in a new process.
Paul B. Johnson	American Electric Power	1	Affirmative	TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or

Voter	Entity	Segment	Vote	Comment
				redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay does not come into play because the primary relays will operate to clear the fault before the backup relays, with the designed intentional time delay, operate. In the context of R1.3.10, there is no effect of backup relaying because the primary or redundant protection will act to properly clear the fault. Requirement 1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. Faulted elements may be removed by primary, backup or redundant protection systems; however, for Category B, the Protection Systems
Brock Ondayko	AEP Service Corp.	5	Affirmative	TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay (which will have an intentional time delay relative to the primary relay)

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Donald S. Watkins	Bonneville Power Administration	1	Affirmative	TPL-002A Request for Interpretation by PacifiCorp Bonneville Power Administration (BPA) Comments - 06-01-09 BPA agrees with the draft interpretation. BPA supports the technical discussion developed by Duke Energy as attached: TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of

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Francis J. Halpin	Bonneville Power Administration	5	Affirmative	TPL-002A Request for Interpretation by PacifiCorp Bonneville Power Administration (BPA) Comments - 06-01-09 BPA agrees with the draft interpretation. BPA supports the technical discussion developed by Duke Energy as attached: TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay (which will have an intentional time delay relative to the primary relay) does not come into play because the primary relays will operate to clear the fault before the backup relays, with the designed intentional time delay, operate. In the context of R1.3.10, there is no effect of backup relaying because the primary or redundant protection will act to properly clear the fault. Requirement 1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. Faulted elements may be removed by primary, backup or redundant protection systems; however, for Category B, the Protection Systems considered must be limited to those that act only under Normal Clearing conditions. To interpret TPL-002 in another way, i.e., to take

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Brenda S. Anderson	Bonneville Power Administration	6	Affirmative	TPL-002A Request for Interpretation by PacifiCorp Bonneville Power Administration (BPA) Comments - 06-01-09 BPA agrees with the draft interpretation. BPA would like to include additional technical support as part of the interpretation, and recommends adding the following discussion: TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal

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Edward P. Cox	AEP Marketing	6	Affirmative	We agree with the draft interpretation. We would like to include additional technical support as part of the interpretation, and recommends adding the following discussion: TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems." NERC, February 12, 2008 Glossary of Terms Used in Reliability Standards at 11. In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration

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				Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended." NERC, Protection System Reliability Redundancy of Protection System Elements 14 (Technical Paper) (2009). (Emphasis added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay (which will have an intentional time delay relative to the primary relay) does not come into play because the primary relays will operate to clear the fault before the backup relays, with the designed intentional time delay, operate. In the context of R1.3.10, there is no effect of backup relaying because the primary or redundant protection will act to properly clear the fault. Requirement 1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. Faulted elements may be removed by primary, backup or redundant protection systems; however, for Category B, the Protection Systems considered must be limited to those that act only under Normal Clearing conditions. To interpret TPL-002 in another way, i.e., to take failure of the primary protection into account at the Category B level in Table I, would mean that all protection system components theoretically subject to failures, unless mitigated by redundancy, would need to be modeled as having failed. This would in turn mean that proper functioning of the Normal Clearing protection scheme as designed would never be analyzed, a clearly illogical result, and not the result that Category B was intended to simulate The study of the reliability of protections systems and potential failure of their components should be the subject of a separate standard or requirements, and there is much to consider in establishing those . In that respect, we support the current NERC Standard Authorization Request (SAR) for Reliability of Protection Systems.

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David Godfrey	PacifiCorp Energy	5	Affirmative	PacifiCorp supports and agrees with the draft interpretation that has been posted for pre-ballot review. The following provides further technical support for ratification of the draft interpretation: The draft interpretation states: "TPL-002-0a requires that System studies or simulations be made to assess the impact of single Contingency operation with Normal Clearing. TPL-002-0a R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. " Requirement 1.3.10 must be read in the context of Table I, Category B (Normal Clearing) of TPL-002. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." The TPL-002 Category B analysis is performed with Normal Clearing as stated in Table 1. The Normal Clearing definition states the protection system must be analyzed consistent with proper functioning and with "Normal Clearing." This means that no failure is assumed with Normal Clearing. Requirement 1.3.10 requires that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. PacifiCorp supports the current NERC Standard development effort underway via the Standard Authorization Request (SAR) for Reliability of Protection Systems. PacifiCorp believes that this is an appropriate avenue to explore whether a separate reliability standard or new requirement should be adopted that would require studies to determine what level of reliability and redundancy is necessary for protection systems and potential failure of their components.
Henry Ernst-Jr	Duke Energy Carolina	3	Affirmative	Duke Energy agrees with the draft interpretation. Duke would like to include additional technical support as part of the interpretation, and recommends adding the following discussion: TPL-002 and the associated Category B section of Table I state that the specific contingencies associated with Category B are to be analyzed "...with Normal Clearing." Clear guidance as to the meaning of "Normal Clearing" is readily available from multiple sources. According to the NERC Glossary of Terms Used in Reliability Standards, Normal Clearing is defined as, "[a] protection system operates as designed and the fault is cleared in the time normally expected with proper functioning of the installed protections systems."(footnote 1).In addition to the NERC Glossary of Terms definition of Normal Clearing, a January 2009 NERC technical paper states, "Normal clearing time is a Protection System mode of operation that does not take into consideration Protection System failure, and assumes that the Protection System is fully functional and will operate as designed and intended."(footnote 2)(Emphasis

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				added) It is clear from these statements that Normal Clearing does not include failures or improper functioning of the protection systems. Thus, Protection System functions that occur only when another Protection System fails to operate as designed are not included for Category B. Because R1.3.10 is part of TPL-002, it must be read in the context of Table I Category B, which specifies Normal Clearing. Requirement 1.3.10 states that assessments are to "Include the effects of existing and planned protection systems, including any backup or redundant systems." As stated above, the TPL-002 Category B analysis is performed with Normal Clearing. As the definition for Normal Clearing explains, the protection system must be analyzed consistent with proper operation, and with "Normal Clearing," that is, no failure is assumed. During Normal Clearing, a backup relay (which will have an intentional time delay relative to the primary relay) does not come into play because the primary relays will operate to clear the fault before the backup relays, with the designed intentional time delay, operate. In the context of R1.3.10, there is no effect of backup relaying because the primary or redundant protection will act to properly clear the fault. Requirement 1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations. Faulted elements may be removed by primary, backup or redundant protection systems; however, for Category B, the Protection Systems considered must be limited to those that act only under Normal Clearing conditions. To interpret TPL-002 in another way, i.e., to take failure of the primary protection into account at the Category B level in Table I, would mean that all protection system components theoretically subject to failures, unless mitigated by redundancy, would need to be modeled as having failed. This would in turn mean that proper functioning of the Normal Clearing protection scheme as designed would never be analyzed, a clearly illogical result, and not the result that Category B was intended to simulate The study of the reliability of protections systems and potential failure of their components should be the subject of a separate standard or requirements, and there is much to consider in establishing those . In that respect, Duke supports the current NERC Standard Authorization Request (SAR) for Reliability of Protection Systems. Footnotes: (1)NERC, February 12, 2008 Glossary of Terms Used in Reliability Standards at 11. (2)NERC, PROTECTION SYSTEM RELIABILITY REDUNDANCY OF PROTECTION SYSTEM ELEMENTS 14 (Technical Paper) (2009).
Response: The interpretation drafting team agrees with the language that you have provided. However, the drafting team believes this type of				

Voter	Entity	Segment	Vote	Comment
background information is not necessary to derive the interpretation.				
Jacquie Smith	ReliabilityFirst Corporation	10	Negative	I agree with most of the interpretation. The interpretation correctly states what TPL-002a R1.3.10 is not requiring, but is not providing guidance as to what it does require. Absent a statement of what it does require, the interpretation is incomplete. We would like to see a more complete interpretation of TPL-002-0a R1.3.10. I believe this language could be a requirement for verification of relay coordination, and where mis-coordination exists with back-up or redundant systems, the simulated outaging of all equipment that would be taken out of service due to this mis-coordination. It also could be a requirement that load transfer systems, which provide back-up and redundant service to customers, be included in the contingency analysis. It also could be a reference to relay schemes where a failure of communications could result in the breaker furthest from the fault being a few cycles slower in opening, than when communications function properly.
Response: The interpretation covers what is required under Requirement R1.3.10 by including the following background: Requirement R1.3 and sub-requirement R1.3.10 of standard TPL-002-0a contain three key obligations: • That the assessment is supported by "study and/or System simulation testing that addresses each of the following categories, showing System performance following Category B of Table 1 (single Contingencies)." • "…these studies and simulations shall be acceptable to the associated Regional Reliability Organization(s)." • "Include the effects of existing and planned Protection Systems, including any backup or redundant systems." The interpretation drafting team agrees that due diligence regarding relay coordination and relay timing issues are crucial to the reliability of the System. Relay coordination is codified in the PRC series of standards. Expanding the interpretation to include a "requirement for verification of relay coordination" and to require the inclusion of an analysis of the effects of a lack of coordination is beyond the scope of an interpretation.				

Voter	Entity	Segment	Vote	Comment
Brad Chase	Orlando Utilities Commission	1	Negative	OUC agrees with the overall intent of the interpretation and believes it properly and thoroughly responds to the questions asked. However OUC is concerned that in answering the question asked by PacifiCorp by rephrasing the question, the interpretation may have unintended consequences. The teams response was "TPL-002-0 R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations". We are concerned that a literal reading of this interpretation in isolation, could result in a determination that any simulations that did not remove all elements as they would be removed by a protection system must be discarded as not valid. This is not the only way to apply R1.3 and R1.3.10, and it was probably not the teams intent to imply as such. OUC would appreciate clarification from the team on this matter in a comment response, and if a revision of the interpretation is made that clarification be incorporated into it.
Ballard Keith Mutters	Orlando Utilities Commission	3	Negative	OUC agrees with the overall intent of the interpretation and believes it properly and thoroughly responds to the questions asked. However OUC is concerned that in answering the question asked by PacifiCorp by rephrasing the question, the interpretation may have unintended consequences. The teams response was "TPL-002-0 R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations". We are concerned that a literal reading of this interpretation in isolation, could result in a determination that any simulations that did not remove all elements as they would be removed by a protection system, even if the "incorrectly modeled" elements did not have any impact on the study area, must be discarded as not valid. In addition, this literal reading is problematic since many entities run simulations that include all single contingencies on their system and neighboring systems, and then, create additional simulations to model where multiple elements are removed from service as a part of a single contingency to supplement those cases. This literal reading would make it where the entire "single contingency" simulation would not be valid since it include one or more individual contingencies that were not modeled correctly, even though the planner modeled them correctly in the supplemental simulations. This is not the only way to apply R1.3 and R1.3.10, and it was probably not the team's intent to imply as such. OUC would appreciate clarification from the team on this matter in a comment response, and if a revision of the interpretation is made that clarification be incorporated into it.

Voter	Entity	Segment	Vote	Comment
Richard Kinas	Orlando Utilities Commission	5	Negative	OUC agrees with the overall intent of the interpretation and believes it properly and thoroughly responds to the questions asked. However OUC is concerned that in answering the question asked by PacifiCorp by rephrasing the question, the interpretation may have unintended consequences. The teams response was "TPL-002-0 R1.3.10 does require that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations". We are concerned that a literal reading of this interpretation in isolation, could result in a determination that any simulations that did not remove all elements as they would be removed by a protection system, even if the "incorrectly modeled" elements did not have any impact on the study area, must be discarded as not valid. In addition, this literal reading is problematic since many entities run simulations that include all single contingencies on their system and neighboring systems, and then, create additional simulations to model where multiple elements are removed from service as a part of a single contingency to supplement those cases. This literal reading would make it where the entire "single contingency" simulation would not be valid since it include one or more individual contingencies that were not modeled correctly, even though the planner modeled them correctly in the supplemental simulations. This is not the only way to apply R1.3 and R1.3.10, and it was probably not the team's intent to imply as such. OUC would appreciate clarification from the team on this matter in a comment response, and if a revision of the interpretation is made that clarification be incorporated into it.
Response: It was not the intent of the interpretation drafting team to add a requirement that doesn't exist. The drafting team's interpretation is that there are several ways to achieve compliance with the standard.				

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Standards Announcement

Recirculation Ballot Window Open
July 17–27, 2009

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

Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp (Project 2009-14)

A recirculation ballot window for VSLs an interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element (Category B) Requirement R1.3.10 for PacifiCorp is now open **until 8 p.m. EDT on July 27, 2009**.

Instructions

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

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.

Next Steps

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

Project Background

The request asks to clarify the following:

- Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?
- Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?
- Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I — Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

The request and interpretation can be found on the project page: http://www.nerc.com/filez/standards/Project2009-14_Interpretation_TPL-002-0_PacifiCorp.html

Standards Development Process

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

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

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Standards Announcement
Final Ballot Results

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

Project 2009-14: Interpretation of TPL-002-0a Requirement R1.3.10 for PacifiCorp
The recirculation ballot for an interpretation of TPL-002-0a — System Performance Following Loss of a Single Bulk Electric System Element (Category B) Requirement R1.3.10 for PacifiCorp ended August 6, 2009.

Ballot Results
Voting statistics are listed below, and the Ballot Results Web page provides a link to the detailed results:

Quorum: 91.24%
Approval: 98.85%

The ballot pool approved the interpretation. Ballot criteria details are listed at the end of the announcement.

Next Steps
The interpretation will be submitted to the NERC Board of Trustees for adoption.

Project Background
The request asks to clarify the following:

- Does TPL-002-0 R1.3.10 require that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations?
- Is a Category B disturbance limited to faults with normal clearing where the protection system operates as designed in the time expected with proper functioning of the protection system(s) or do Category B disturbances extend to protection system misoperations and failures?
- Does TPL-002-0 R1.3.10 require that planning for Category B contingencies assume a contingency that results in something other than a normal clearing event even though the TPL-002-0 Table I — Category B matrix uses the phrase "SLG or 3-Phase Fault, with Normal Clearing"?

The request and interpretation can be found on the project page:
http://www.nerc.com/filez/standards/Project2009-14_Interpretation_TPL-002-0_PacifiCorp.html

Standards Development Process

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

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

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

Ballot Results	
Ballot Name:	Project 2009-14 Interpretation - PacifiCorp - TPL-002-0a_rc
Ballot Period:	7/24/2009 - 8/6/2009
Ballot Type:	recirculation
Total # Votes:	198
Total Ballot Pool:	217
Quorum:	91.24 % The Quorum has been reached
Weighted Segment Vote:	98.85 %
Ballot Results:	The Standard has Passed

Summary of Ballot Results

Segment	Ballot Pool	Segment Weight	Affirmative # Votes	Affirmative Fraction	Negative # Votes	Negative Fraction	Abstain # Votes	No Vote
1 - Segment 1.	65	1	55	0.948	3	0.052	3	4
2 - Segment 2.	11	1	11	1	0	0	0	0
3 - Segment 3.	52	1	43	1	0	0	4	5
4 - Segment 4.	11	0.8	8	0.8	0	0	3	0
5 - Segment 5.	36	1	29	0.967	1	0.033	1	5
6 - Segment 6.	24	1	19	1	0	0	0	5
7 - Segment 7.	0	0	0	0	0	0	0	0
8 - Segment 8.	3	0.3	3	0.3	0	0	0	0
9 - Segment 9.	7	0.6	6	0.6	0	0	1	0
10 - Segment 10.	8	0.7	7	0.7	0	0	1	0
Totals	217	7.4	181	7.315	4	0.085	13	19

Individual Ballot Pool Results

Segment	Organization	Member	Ballot	Comments
1	Ameren Services	Kirit S. Shah	Affirmative	
1	American Electric Power	Paul B. Johnson	Affirmative	View
1	American Transmission Company, LLC	Jason Shaver	Affirmative	
1	Arizona Public Service Co.	Robert D Smith	Affirmative	
1	Avista Corp.	Scott Kinney	Affirmative	
1	BC Transmission Corporation	Gordon Rawlings	Affirmative	
1	Black Hills Corp	Eric Egge	Affirmative	
1	Bonneville Power Administration	Donald S. Watkins	Affirmative	View

1	Brazos Electric Power Cooperative, Inc.	Tony Kroskey	Affirmative	
1	CenterPoint Energy	Paul Rocha	Affirmative	
1	Central Maine Power Company	Brian Conroy	Affirmative	
1	City Utilities of Springfield, Missouri	Jeff Knottek	Affirmative	
1	Consolidated Edison Co. of New York	Christopher L de Graffenried	Affirmative	
1	Dominion Virginia Power	William L. Thompson	Affirmative	View
1	Duke Energy Carolina	Douglas E. Hils	Affirmative	
1	E.ON U.S. LLC	Larry Monday	Affirmative	
1	El Paso Electric Company	Dennis Malone	Affirmative	
1	Entergy Corporation	George R. Bartlett	Affirmative	
1	Exelon Energy	John J. Blazekovich	Affirmative	
1	Farmington Electric Utility System	Alan Glazner	Negative	
1	FirstEnergy Energy Delivery	Robert Martinko	Affirmative	
1	Florida Keys Electric Cooperative Assoc.	Dennis Minton	Abstain	
1	Florida Power & Light Co.	Hector Sanchez	Affirmative	
1	Gainesville Regional Utilities	Luther E. Fair	Abstain	
1	Georgia Transmission Corporation	Harold Taylor, II	Affirmative	
1	Hoosier Energy Rural Electric Cooperative, Inc.	Damon Holladay	Affirmative	
1	Hydro One Networks, Inc.	Ajay Garg	Affirmative	
1	Idaho Power Company	Ronald D. Schellberg	Affirmative	
1	ITC Transmission	Elizabeth Howell	Affirmative	
1	JEA	Ted E. Hobson	Affirmative	
1	Kansas City Power & Light Co.	Michael Gammon	Affirmative	
1	Kissimmee Utility Authority	Joe B Watson	Abstain	
1	Lakeland Electric	Larry E Watt	Affirmative	View
1	Lee County Electric Cooperative	Rodney Hawkins	Negative	
1	Lincoln Electric System	Doug Bantam	Affirmative	
1	Manitoba Hydro	Michelle Rheault	Affirmative	
1	MEAG Power	Danny Dees	Negative	
1	National Grid	Manuel Couto		
1	New York Power Authority	Ralph Rufrano		
1	Northern Indiana Public Service Co.	Kevin M Largura	Affirmative	
1	Ohio Valley Electric Corp.	Robert Mattey	Affirmative	
1	Oklahoma Gas and Electric Co.	Marvin E VanBebber	Affirmative	
1	Omaha Public Power District	lorees Tadros		
1	Oncor Electric Delivery	Charles W. Jenkins	Affirmative	
1	Orlando Utilities Commission	Brad Chase	Affirmative	View
1	Otter Tail Power Company	Lawrence R. Larson	Affirmative	
1	Pacific Gas and Electric Company	Chifong L. Thomas	Affirmative	
1	PacifiCorp	Mark Sampson	Affirmative	
1	Potomac Electric Power Co.	Richard J. Kafka	Affirmative	View
1	PowerSouth Energy Cooperative	Larry D. Avery	Affirmative	
1	PP&L, Inc.	Ray Mammarella	Affirmative	
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	Salt River Project	Robert Kondziolka	Affirmative	
1	Santee Cooper	Terry L. Blackwell	Affirmative	
1	SaskPower	Wayne Guttormson	Affirmative	
1	Seattle City Light	Pawel Krupa	Affirmative	
1	Sierra Pacific Power Co.	Richard Salgo	Affirmative	
1	Southern California Edison Co.	Dana Cabbell	Affirmative	
1	Southern Company Services, Inc.	Horace Stephen Williamson		
1	Southwest Transmission Cooperative, Inc.	James L. Jones	Affirmative	
1	Tucson Electric Power Co.	John Tolo	Affirmative	
1	Western Area Power Administration	Brandy A Dunn	Affirmative	
1	Xcel Energy, Inc.	Gregory L. Pieper	Affirmative	
2	Alberta Electric System Operator	Anita Lee	Affirmative	
2	British Columbia Transmission Corporation	Phil Park	Affirmative	
2	California ISO	Greg Tillitson	Affirmative	
2	Electric Reliability Council of Texas, Inc.	Chuck B Manning	Affirmative	
2	Independent Electricity System Operator	Kim Warren	Affirmative	
2	ISO New England, Inc.	Kathleen Goodman	Affirmative	
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	
2	Southwest Power Pool	Charles H Yeung	Affirmative	
3	Ameren Services	Mark Peters	Affirmative	
3	American Electric Power	Raj Rana	Affirmative	
3	Arizona Public Service Co.	Thomas R. Glock	Affirmative	
3	Atlantic City Electric Company	James V. Petrella	Affirmative	
3	Avista Corp.	Robert Lafferty		
3	BC Hydro and Power Authority	Pat G. Harrington	Abstain	
3	Bonneville Power Administration	Rebecca Berdahl	Affirmative	View
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	Cowlitz County PUD	Russell A Noble	Affirmative	
3	Delmarva Power & Light Co.	Michael R. Mayer	Affirmative	
3	Detroit Edison Company	Kent Kujala	Affirmative	
3	Dominion Resources, Inc.	Jalal (John) Babik	Affirmative	
3	Duke Energy Carolina	Henry Ernst-Jr	Affirmative	View
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		
3	Gulf Power Company	Gwen S Frazier		
3	Hydro One Networks, Inc.	Michael D. Penstone	Affirmative	
3	JEA	Garry Baker	Affirmative	
3	Kansas City Power & Light Co.	Charles Locke	Affirmative	
3	Kissimmee Utility Authority	Gregory David Woessner	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	MidAmerican Energy Co.	Thomas C. Mielnik	Abstain	
3	Mississippi Power	Don Horsley		
3	Municipal Electric Authority of Georgia	Steven M. Jackson	Abstain	
3	New York Power Authority	Michael Lupo	Affirmative	
3	Niagara Mohawk (National Grid Company)	Michael Schiavone	Affirmative	
3	Northern Indiana Public Service Co.	William SeDoris	Affirmative	
3	Orlando Utilities Commission	Ballard Keith Mutters	Affirmative	
3	PacifiCorp	John Apperson	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. 1 of Chelan County	Kenneth R. Johnson	Abstain	
3	Public Utility District No. 2 of Grant County	Greg Lange	Affirmative	
3	Salt River Project	John T. Underhill	Affirmative	
3	Santee Cooper	Zack Dusenbury	Affirmative	
3	Seattle City Light	Dana Wheelock	Affirmative	
3	South Carolina Electric & Gas Co.	Hubert C. Young	Affirmative	View
3	Southern California Edison Co.	David Schiada	Affirmative	
3	Tampa Electric Co.	Ronald L. Donahey	Affirmative	
3	Turlock Irrigation District	Casey Hashimoto		
3	Xcel Energy, Inc.	Michael Ibold	Affirmative	
4	Alliant Energy Corp. Services, Inc.	Kenneth Goldsmith	Abstain	
4	American Municipal Power - Ohio	Kevin L Holt	Abstain	
4	Consumers Energy	David Frank Ronk	Affirmative	
4	Detroit Edison Company	Daniel Herring	Affirmative	
4	Georgia System Operations Corporation	Guy Andrews	Affirmative	
4	Ohio Edison Company	Douglas Hohlbaugh	Affirmative	
4	Public Utility District No. 1 of Snohomish County	John D. Martinsen	Affirmative	View
4	Sacramento Municipal Utility District	Dilip Mahendra	Affirmative	
4	Seattle City Light	Hao Li	Affirmative	
4	Seminole Electric Cooperative, Inc.	Steven R. Wallace	Affirmative	
4	Wisconsin Energy Corp.	Anthony Jankowski	Abstain	
5	AEP Service Corp.	Brock Ondayko	Affirmative	View

5	Amerenue	Sam Dwyer	Affirmative	
5	Avista Corp.	Edward F. Groce	Affirmative	
5	Bonneville Power Administration	Francis J. Halpin	Affirmative	View
5	City of Tallahassee	Alan Gale	Affirmative	
5	Colmac Clarion/Piney Creek LP	Harvie D. Beavers	Affirmative	
5	Consumers Energy	James B Lewis	Affirmative	
5	Detroit Edison Company	Ronald W. Bauer	Affirmative	
5	Dominion Resources, Inc.	Mike Garton	Affirmative	
5	Duke Energy	Robert Smith		
5	East Kentucky Power Coop.	Stephen Ricker		
5	Entergy Corporation	Stanley M Jaskot	Negative	View
5	Exelon Nuclear	Michael Korchynsky	Affirmative	
5	FirstEnergy Solutions	Kenneth Dresner	Affirmative	
5	FPL Energy	Benjamin Church	Affirmative	
5	JEA	Donald Gilbert	Affirmative	
5	Kansas City Power & Light Co.	Scott Heidtbrink	Affirmative	
5	Lincoln Electric System	Dennis Florom	Affirmative	
5	Louisville Gas and Electric Co.	Charlie Martin	Affirmative	
5	Manitoba Hydro	Mark Aikens	Affirmative	
5	New York Power Authority	Gerald Mannarino	Affirmative	
5	Northern Indiana Public Service Co.	Michael K Wilkerson	Affirmative	
5	Northern States Power Co.	Liam Noailles	Affirmative	
5	Orlando Utilities Commission	Richard Kinas	Affirmative	View
5	PacifiCorp Energy	David Godfrey	Affirmative	View
5	Portland General Electric Co.	Gary L Tingley		
5	PPL Generation LLC	Mark A. Heimbach	Affirmative	
5	Progress Energy Carolinas	Wayne Lewis		
5	PSEG Power LLC	Thomas Piascik	Affirmative	
5	Salt River Project	Glen Reeves	Affirmative	
5	Seattle City Light	Michael J. Haynes	Affirmative	
5	Seminole Electric Cooperative, Inc.	Brenda K. Atkins	Affirmative	
5	Southeastern Power Administration	Douglas Spencer	Abstain	
5	Tenaska, Inc.	Scott M. Helyer	Affirmative	
5	U.S. Army Corps of Engineers Northwestern Division	Karl Bryan	Affirmative	
5	U.S. Bureau of Reclamation	Martin Bauer		
6	AEP Marketing	Edward P. Cox	Affirmative	View
6	Ameren Energy Marketing Co.	Jennifer Richardson	Affirmative	
6	Bonneville Power Administration	Brenda S. Anderson	Affirmative	View
6	Consolidated Edison Co. of New York	Nickesha P Carrol	Affirmative	
6	Dominion Resources, Inc.	Louis S Slade	Affirmative	View
6	Duke Energy Carolina	Walter Yeager		
6	Entergy Services, Inc.	Terri F Benoit	Affirmative	
6	Exelon Power Team	Pulin Shah	Affirmative	
6	FirstEnergy Solutions	Mark S Travaglianti	Affirmative	
6	Kansas City Power & Light Co.	Thomas Saitta		
6	Lincoln Electric System	Eric Ruskamp	Affirmative	
6	Louisville Gas and Electric Co.	Daryn Barker	Affirmative	
6	Manitoba Hydro	Daniel Prowse	Affirmative	
6	New York Power Authority	Thomas Papadopoulos	Affirmative	
6	Northern Indiana Public Service Co.	Joseph O'Brien	Affirmative	
6	Progress Energy	James Eckelkamp		
6	PSEG Energy Resources & Trade LLC	James D. Hebson	Affirmative	
6	Public Utility District No. 1 of Chelan County	Hugh A. Owen	Affirmative	
6	Salt River Project	Mike Hummel	Affirmative	
6	Santee Cooper	Suzanne Ritter	Affirmative	
6	Seminole Electric Cooperative, Inc.	Trudy S. Novak		
6	Southern California Edison Co.	Marcus V Lotto	Affirmative	
6	Western Area Power Administration - UGP Marketing	John Stonebarger	Affirmative	
6	Xcel Energy, Inc.	David F. Lemmons		
8	Edward C Stein	Edward C Stein	Affirmative	
8	JDRJC Associates	Jim D. Cyrulewski	Affirmative	
8	Volkmann Consulting, Inc.	Terry Volkmann	Affirmative	
9	California Energy Commission	William Mitchell Chamberlain	Affirmative	
9	Commonwealth of Massachusetts Department of Public Utilities	Donald E. Nelson	Affirmative	
9	Maine Public Utilities Commission	Jacob A McDermott	Abstain	

9	National Association of Regulatory Utility Commissioners	Diane J. Barney	Affirmative	
9	New York State Department of Public Service	Thomas G Dvorsky	Affirmative	
9	Oregon Public Utility Commission	Jerome Murray	Affirmative	
9	Public Service Commission of South Carolina	Philip Riley	Affirmative	
10	Electric Reliability Council of Texas, Inc.	Kent Saathoff	Affirmative	
10	Florida Reliability Coordinating Council	Linda Campbell	Affirmative	
10	Midwest Reliability Organization	Dan R Schoenecker	Affirmative	
10	New York State Reliability Council	Alan Adamson	Affirmative	
10	Northeast Power Coordinating Council, Inc.	Guy V. Zito	Affirmative	
10	ReliabilityFirst Corporation	Jacquie Smith	Abstain	
10	SERC Reliability Corporation	Carter B. Edge	Affirmative	
10	Western Electricity Coordinating Council	Louise McCarren	Affirmative	

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Exhibit D

Roster of the Interpretation Development Team

RFI of TPL-002-0 by PacifiCorp — Project 2009-14		
Chairman	Bill Harm	PJM
	Ron Mazur	Manitoba Hydro
	Dana Walters	National Grid
	Doug Hohlbaugh	First Energy
	Bob Jones	Southern Co.
	Brian Keel	Salt River Project
NERC Staff	Edd Dobrowolski Standards Coordinator	North American Electric Reliability Corporation