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May 10, 2010

VIA ELECTRONIC FILING

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

Re: Interpretation of Transmission Planning Reliability Standard;
Docket No. RM10-6-000

Dear Secretary Salas:

Transmitted electronically for filing in the referenced docket are the Comments of the ISO/RTO Council.

If there are any questions concerning this filing, please call me at (202) 661-2212.

Respectfully submitted,

/s/ Daniel R. Simon

Daniel R. Simon
Counsel for ISO New England Inc.
On behalf of the ISO/RTO Council

Enclosure

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Interpretation of Transmission Planning Reliability Standard	)	**Docket No. RM10-6-000**

COMMENTS OF THE ISO/RTO COUNCIL

I. INTRODUCTION

The ISO/RTO Council ("IRC")[1] respectfully submits these joint comments in response to the Commission's Notice of Proposed Rulemaking ("NOPR") issued on March 18, 2010 concerning the interpretation of Requirement R1.3.10 of Reliability Standard TPL-002-0. In the NOPR, the Commission proposes to reject the proposed interpretation developed by NERC and overwhelmingly supported by the energy industry, with 98.85% of the registered balloting body voting in its support, and, instead, proposes an alternative interpretation of the provision.

[1] The IRC is comprised of the Alberta Electric System Operator ("AESO"), the California Independent System Operator ("CAISO"), Electric Reliability Council of Texas ("ERCOT"), the Independent Electricity System Operator of Ontario, Inc., ("IESO"), ISO New England, Inc. ("ISONE"), Midwest Independent Transmission System Operator, Inc., ("Midwest ISO"), New York Independent System Operator, Inc. ("NYISO"), PJM Interconnection, L.L.C. ("PJM"), Southwest Power Pool, Inc. ("SPP"), and New Brunswick System Operator ("NBSO"). NBSO does not join these comments. The IESO, AESO and NBSO are not subject to the Commission's jurisdiction and these comments do not constitute agreement or acknowledgement that they can be subject to the Commission's jurisdiction. The IRC's mission is to work collaboratively to develop effective processes, tools and standard methods for improving the competitive electricity markets across North America. In fulfilling this mission, it is the IRC's goal to provide a perspective that balances reliability standards with market practices so that each complements the other, thereby resulting in efficient, robust markets that provide competitive and reliable service to customers.

II. SUMMARY

The IRC believes that the NERC interpretation comports with the plain meaning of the standard, is just and reasonable, and ensures power system reliability without any gap in contingency evaluation, providing for the study of the effects of the single contingences listed under Category B on all transmission system equipment including existing and planned primary, backup or redundant protection systems.

In contrast, it appears that the Commission has misread the TPL-002-0 standard, which has lead to the proposed rejection of the NERC interpretation as well as the alternative interpretation set forth in the NOPR. TPL-002-0 requires planners to examine the effects of certain single contingency events on the transmission system. The four specified single contingencies are listed under Category B of Table I of the TPL standards and do not include the loss of protection systems.[2] Part B of TPL-002-0 sets out a list of requirements, including what should be included in the base case, including all existing and planned facilities (R1.3.8), effects of existing and planned protection systems, including any backup or redundant systems (R1.3.10), and the planned outage of any bulk electric system equipment, including protection systems or their components, under conditions for which maintenance would be approved (R1.3.12). The NOPR's fundamental error in proposing to reject the NERC interpretation and specify its own is the understanding that R1.3.10 requires the non-operation of a protection system in the base case so that the operation of a backup or redundant system can be tested. R1.3.10 requires no such thing. Rather, R1.3.10 requires planners to evaluate single contingencies in light of protection systems, but does not require that the protection systems be

[2] Loss of protection systems is studied under the TPL-003 and TPL-004 standards, where such a failure is specified under Categories C and D of Table I.

evaluated individually. In other words, R1.3.10 does not require alternate testing of the primary protection system out-of-service and the backup in-service in the base case, and vice versa. This is an important point because the R1.3.10 language is replicated under TPL-003-0 and TPL-004-0 and the NOPR's interpretation of what is put into the base case will follow into those other transmission planning standards, effectively adding another layer of outages to all of them.

The interpretation set out in the NOPR, which would require the modeling of a malfunction or non-operation of primary protection systems in the base case before the single Category B Contingencies specified in the standard are applied, is inconsistent with the language and intent of TPL-002-0 and has substantive impacts on transmission planning given the limited actions that may be taken in response to a single system contingency as opposed to steps that may be taken when multiple system contingencies occur, as are studied under TPL-003 and TPL-004. The NOPR's interpretation would require significant investments in the transmission system with little corresponding reliability benefit, requiring a third protection system under TPL-003 and TPL-004 to accomplish what was previously achieved through a primary or backup protection system.

The IRC believes that the NERC interpretation comports with the requirements of TPL-002-0 and that the Commission should accept NERC's interpretation without modification. If the Commission has questions regarding how the standard operates or requires additional explanation regarding an interpretation, the IRC respectfully requests that the Commission remand the interpretation to NERC for further clarification rather than propose its own interpretation in lieu of NERC process. Further, if the Commission believes that the standard itself is not clear, the IRC requests that the Commission direct NERC to provide additional clarity in the next iteration of the transmission planning standards.

III. COMMENTS

A. The NERC Interpretation Comports with the Plain Meaning of the Standard, is Just and Reasonable, and Ensures Power System Reliability Without Any Gap in Contingency Evaluation, Including Study of the Effects of the Single Contingences Listed Under Category B on All Transmission System Equipment Including Existing and Planned Primary, Backup or Redundant Protection Systems

The IRC supports the interpretation offered by NERC in response to the request from PacifiCorp for clarification regarding Reliability Standard TPL-002-0, Requirement R1.3.10 because it is reasonable and comports with the language and intent of the reliability standard. The IRC recommends that the NERC interpretation be accepted by the Commission.

In pertinent part, PacifiCorp asked whether TPL-002-0, R1.3.10 "require[s] that all elements that are expected to be removed from service through normal operation of the protection systems be removed in simulations" and whether "Category B disturbances extend to protection system misoperations or failures."

NERC correctly observed that the standard "require[s] that all elements expected to be removed from service through normal operations of the Protection Systems be removed in simulations," but that "[t]his 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 … and TPL-004-0… ."

1. TPL-002-0 Requires the Study of the Impacts of Enumerated Single Contingencies and Does Not Require the Non-operation of Protection System in the Base Case

TPL-002-0 requires planners to examine the effects of certain single contingency events on the transmission system. The four specified single contingencies are listed under Category B

of Table I of the TPL standards and do not include the loss of protection systems. Requirement R1.3.10 does not require that primary protection systems be removed from service to study the effects of a disturbance on back up protection systems in conjunction with one of the single contingency events listed under Category B. Moreover, the standard does not require study of transmission system performance due to a protection system failure or non-operation.

What the standard does require is that transmission planners assess the impacts of the single Category B contingencies taking into account, among other things, all existing and planned facilities (R1.3.8), effects of existing and planned protection systems, including any backup or redundant systems (R1.3.10) and the planned outage of any bulk electric system equipment, including protection systems or their components, under conditions for which maintenance would be approved (R1.3.12). R1.3.10 requires planners to evaluate single contingencies in light of protection systems, but does not require that the protection systems be evaluated individually. In other words, R1.3.10 does not require alternate testing of the primary protection system out-of-service and the backup in-service in the base case, and the reverse. This is an important point because the R1.3.10 language is replicated under TPL-003-0 and TPL-004-0 and the NOPR's interpretation of what is put into the base case will follow into those other transmission planning standards, effectively adding another layer of outages to all of them.

2. The Operation of Backup or Redundant Systems Are Specifically Accounted For under R1.3.12, Which Directs that Studies Account for the Planned Outage of the Primary Protection System Under Maintenance Outage Conditions

The operation of backup or redundant protection systems during a single contingency event are accounted for under TPL-002-0 under R1.3.12, which directs that a case should look at the effect of the Category B contingencies on power systems with certain equipment unavailable due to planned outages, including protection systems "at those demand levels for which planned

(including maintenance) outages are performed." In other words, the standard is clear that the operation of these systems is examined under the system conditions where planners and operators have determined that planned outages can occur without causing an unacceptable negative impact to system security.

3. Multiple-Contingency Events are Studied under TPL-003-0 and TPL-004-0

The transmission planning reliability standards begin with TPL-001 and the study of the system in the absence of contingencies. TPL-002-0 adds study of the system with a single contingency as discussed above. 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)" address study of the system accounting for the occurrence of various multiple contingencies. As NERC correctly notes in its interpretation, it is under these Reliability Standards that the failure or misoperation of protection systems are specified and studied.

In light of the language of the Reliability Standards reviewed above, NERC's proposed interpretation of TPL-002-0, R1.3.10 appears to fully comport with the current FERC-approved reliability standards. The IRC respectfully requests that the Commission approve the interpretation as submitted by NERC.

B. The Interpretation Set Out in the NOPR Is Inconsistent with the Language of TPL-002-0 and Appears to be Based on a Fundamental Misunderstanding of that Standard

In proposing the rejection of a reliability standard interpretation developed through the Electric Reliability Organization process, the Commission appears to believe it is has no alternative given the language of the Reliability Standard, taking the view that NERC

"miscategorizes non-operation of non-redundant primary protection systems as protection system failure which is addressed in TPL-003-0 and TPL-004-0."[3] The NOPR continues:

> Accordingly, by categorizing the non-operation of non-redundant primary protection systems as protection system failure, NERC's proposed interpretation misses studying the effects of backup and redundant protection systems pursuant to Requirement R1.3.10 of TPL-002-0. Rather, for the reasons discussed below, we believe that Requirement R1.3.10 of TPL-002-0 requires that planners study, in their system assessments, the non-operation of primary protection systems in order to ascertain whether and how reliance on the as-designed backup or redundant protection systems affects reliability. Accordingly, we propose an interpretation of Requirement of R1.3.10 of Reliability Standard TPL-002-0 consistent with our understanding.[4]

In short, the NOPR asserts that the NERC interpretation is inconsistent with the TPL-002-0 reliability standard. The NOPR understands R1.3.10 to mean that the transmission system must be studied accounting for the effects of protection systems and that redundant or backup protection systems cannot be studied unless non-operation of the primary protection system as a base case condition is read into the meaning of the reliability standard.

However, as discussed above, the IRC believes that FERC has misread the standard in this instance. TPL-002-0 requires the examination of a set of specified contingencies under Category B, with those contingencies applied to base cases that include various information regarding existing and planned facilities. Rather than require the non-operation of a protection system as a base case condition, R1.3.10 requires that planners account for the existence of current or planned protection systems – both primary and backup or redundant systems – when the impacts of a single contingency are examined. This does not mean that the primary

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3 NOPR at P 16.

4 *Id.*

protection system must be considered non-operational to identify the effects on the system of those redundant or backup units. Rather, as noted above R1.3.10 requires planners to evaluate single contingencies in light of protection systems, but does not require that the protection systems be evaluated individually, *i.e.*, R1.3.10 does not require alternate testing with the base case assumption that the primary protection system in-service and the backup out-of-service and vice versa. Assessing the non-operation of a protection system in conjunction with a separate system contingency presents the very scenario that TPL-003-0 is intended to examine. Adopting the Commission's interpretation does not result in duplication of the other reliability standards. Rather, it would present substantive consequences.

The interpretation proposed by the NOPR could result in significant investments in the transmission system with little corresponding reliability benefit. This is because transmission planners are more limited in the actions that they may consider in response to a single system contingency as opposed to steps that may be taken when multiple system contingencies occur, as are studied under TPL-003 and TPL-004. Requiring another system element loss to be included in the base case in effect rewrites the TPL-002-0 Reliability Standard in contravention of Section 215 of the Federal Power Act, a rewrite that would *require* backup and redundant protection systems. In addition, the interpretation set forth in the NOPR would effectively require a third protection system to get the level of reliability previously understood to have existed with a primary and a backup system once planners move from a single contingency case under TPL-002-0 to a two contingency case under TPL-003-0.

To illustrate the last point, if a single contingency is understood also involve the non-operation of the primary protection system under TPL-002-0, then a two contingency event under TPL-003-0 – which includes the same language as R1.3.10 – would also assume the non-

operation of the primary protection system in its base case, and add to that the loss of the back-up system as the *first* contingency, to which another contingency would also be added. This would result in layering additional backup protection systems in addition to current backup systems in order to achieve the level of system reliability understood to exist today under the current application of TPL-002-0, TPL-003-0 and TPL-004-0.[5]

C. The NERC Interpretation Should be Accepted by the Commission. If Additional Explanation Is Needed, the Commission Should Remand the Interpretation to NERC for Clarification Rather than Set Aside the NERC Process

As the Commission notes in the NOPR, NERC's interpretation was developed under the NERC Rules of Procedure, which allow for requests to be made to NERC for the interpretation of a Reliability Standard. NERC's proposed interpretation was developed in consultation with an assembled team of industry experts who were tasked with examining the requested interpretation. The results of this work were then submitted to the ballot pool for evaluation. The majority of the electric energy industry supported NERC's proposed interpretation. With a quorum achieving 91.24% of the ballot pool, the interpretation was approved by 98.85% of the registered balloting body.

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[5] TPL-004-0 also includes language identical to that found in TPL-002-0 at R1.3.10. Under TPL-004-0, the base case requirement is identified as R1.3.7. In general, today when systems are studied under TPL-003-0, the primary and backup protection systems are in service in the base case. The TPL-003-0 event is a fault on the transmission system with a failure of the protection system. The backup protection system is still available to clear the fault. Under NOPR's interpretation, the primary protection system is made nonoperational under the R.1.3.10 language. Because TPL-003-0 and TPL-004-0 contain that same language, the NOPR's interpretation would include the non-operation of the primary protection system in the base case across all of those standards. Under that scenario, where there is the same system event: a fault on the transmission system and the failure of a protection system, the protection system failing is now the backup (the primary was removed in the base case) and there is no protection system in place at that point to clear the fault unless a third is installed.

Rather than setting this process, and the resulting consensus, aside, the IRC respectfully requests that if additional explanation is needed beyond what has been received in these comments or others, that FERC remand the interpretation to NERC for additional clarification rather than propose its own interpretation.

If the Commission believes that the standard itself is not clear, the IRC requests that the Commission direct NERC to provided additional clarity in the next iteration of the transmission planning standards.

IV. CONCLUSION

WHEREFORE, for the reasons stated above, the IRC requests that the Commission accept the interpretation as submitted by NERC, or, if further explanation is warranted, remand the proposed NERC interpretation for additional clarification. Further, if the Commission believes that the standard itself is not clear, the IRC requests that the Commission direct NERC to provided additional clarity in the next iteration of the transmission planning standards. The IRC requests that the Commission not adopt the interpretation of TPL-002-0 proposed in the NOPR.

Respectfully submitted,

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