
**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

NOTICE AND SUPPLEMENTAL NOTICE) Docket No. RM08-7-000
OF PROPOSED RULEMAKING ON)
MODIFICATION OF INTERCHANGE AND)
TRANSMISSION LOADING RELIEF)
RELIABILITY STANDARDS; AND)
ELECTRIC RELIABILITY ORGANIZATION)
INTERPRETATION OF SPECIFIC)
REQUIREMENTS OF FOUR RELIABILITY)
STANDARDS)

**COMMENTS OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION**

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability
Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
North American Electric Reliability
Corporation
1120 G Street, N.W., Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

June 12, 2008

TABLE OF CONTENTS

	Page
I. INTRODUCTION	1
II. NOTICES AND COMMUNICATIONS	2
III. BACKGROUND	2
a. Regulatory Framework	2
b. Basis for Approval of Additional Proposed reliability standards	3
c. Reliability Standards Development Procedure	3
d. Overview of the reliability standards Addressed in this Filing	4
IV. DISCUSSIONS OF MAJOR ISSUES OUTLINED IN THE NOPR	8
V. CONCLUSIONS AND ACTIONS REQUESTED OF THE COMMISSION	23

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

NOTICE AND SUPPLEMENTAL NOTICE)	Docket No. RM08-7-000
OF PROPOSED RULEMAKING ON)	
MODIFICATION OF INTERCHANGE AND)	
TRANSMISSION LOADING RELIEF)	
RELIABILITY STANDARDS; AND)	
ELECTRIC RELIABILITY ORGANIZATION)	
INTERPRETATION OF SPECIFIC)	
REQUIREMENTS OF FOUR RELIABILITY)	
STANDARDS)	

**COMMENTS OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION**

I. INTRODUCTION

The North American Electric Reliability Corporation (“NERC”)¹ is pleased to provide these comments in response to the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) Notice of Proposed Rulemaking and Supplemental Notice of Proposed Rulemaking in the captioned proceeding (collectively the “NOPR”),² regarding the modification of Interchange and Transmission Loading Relief reliability standards and interpretations of specific requirements of four reliability standards. NERC commends the Commission’s determination to approve the proposed reliability standards and interpretations in accordance

¹ NERC has been certified by the Commission as the electric reliability organization (“ERO”) authorized by Section 215 of the Federal Power Act. The Commission certified NERC as the ERO in its order issued July 20, 2006 in Docket No. RR06-1-000. 116 FERC ¶ 61,062 (2006) (“ERO Certification Order”).

² *Modification of Interchange and Transmission Loading Relief Reliability Standards; and Electric Reliability Organization Interpretation of Specific Requirements of Four Reliability Standards*, Notice of Proposed Rulemaking, 123 FERC ¶ 61,054 (2008) (“NOPR”); *Modification of Interchange and Transmission Loading Relief Reliability Standards; and Electric Reliability Organization Interpretation of Specific Requirements of Four Reliability Standards*, Supplemental Notice of Proposed Rulemaking, 123 FERC ¶ 61,184 (2008) (“May 16 Supplemental NOPR”).

with Section 215(d)(1) of the Federal Power Act (“FPA”)³ and Section 39.5 of the Commission’s regulations.⁴

NERC provides the following comments on the NOPR proposals and responds to questions posed by the Commission in the NOPR.

II. NOTICES AND COMMUNICATIONS

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

Rick Sergel
President and Chief Executive Officer
David N. Cook*
Vice President and General Counsel
North American Electric Reliability
Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael*
Assistant General Counsel
North American Electric Reliability
Corporation
1120 G Street, N.W., Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

*Persons to be included on the Commission’s service list are indicated with an asterisk.

III. BACKGROUND

a. Regulatory Framework

By enacting the Energy Policy Act of 2005,⁵ Congress entrusted the Commission with the duties of approving and enforcing rules to ensure the reliability of the Nation’s bulk power system, and with the duties of certifying an electric reliability organization (“ERO”) that would be charged with developing and enforcing mandatory reliability standards, subject to

³ 16 U.S.C. 824o.

⁴ 18 C.F.R. § 39.5 (2006). *See* NOPR at P 1.

⁵ Energy Policy Act of 2005, Pub. L. No. 109-58, Title XII, Subtitle A, 119 Stat. 594, 941 (2005) (to be codified at 16 U.S.C. § 824o).

Commission approval. Section 215 states that all users, owners and operators of the bulk power system in the United States will be subject to Commission approved reliability standards.

b. Basis for Approval of Additional Proposed Reliability Standards

Section 39.5(a) of the Commission’s regulations requires the ERO to file with the Commission for its approval each reliability standard that the ERO proposes to become mandatory and enforceable in the United States, and each modification to a reliability standard that the ERO proposes to be made effective. The Commission has the regulatory responsibility to approve standards that protect the reliability of the bulk power system. In discharging its responsibility to review, approve, and enforce mandatory reliability standards, the Commission is authorized to approve those proposed standards that meet the criteria detailed by Congress:

The Commission may approve, by rule or order, a proposed reliability standard or modification to a reliability standard if it determines that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest.⁶

When evaluating proposed reliability standards, the Commission is expected to give “due weight” to the technical expertise of the ERO. Order No. 672 provides guidance on the factors the Commission will consider when determining whether proposed reliability standards meet the statutory criteria.⁷

c. Reliability Standards Development Procedure

NERC develops reliability standards in accordance with Section 300 (Reliability Standards Development) of its Rules of Procedure and the NERC *Reliability Standards*

⁶ Section 215(d)(2) of the FPA, to be codified at 16 U.S.C. § 824o(d)(2).

⁷ See Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards, Order No. 672, 71 FR 8,662 (Feb. 17, 2006), FERC Stats. & Regs. Regulations Preambles ¶ 31,204 (2006) at PP 320-338.

Development Procedure, which is Appendix 3A of the Rules of Procedure.⁸ In its ERO Certification Order, the Commission found that NERC's rules provide for reasonable notice and opportunity for public comment, due process, openness and a balance of interests in developing reliability standards.⁹

The development process is open to any person or entity with a legitimate interest in the reliability of the bulk power system. NERC considers the comments of all stakeholders and a vote of stakeholders is required to approve a reliability standard for submission to the Commission.

d. Overview of the Reliability Standards and Interpretations Addressed in this Filing

Interpretations

On December 19, 2007, NERC filed for approval of interpretations to five requirements in four NERC reliability standards: BAL-001-0 — Real Power Balancing Control Performance, Requirement R1; BAL-003-0 — Frequency Response and Bias, Requirement R3; BAL-005-0 — Automatic Generation Control, Requirement R17;¹⁰ and VAR-002-1 — Generator Operation for Maintaining Network Voltage Schedules, Requirements R1 and R2.

The stated purpose of BAL-001-0 — Real Power Balancing Control Performance (the “control performance standard” or “CPS”) is “to maintain Interconnection steady-state frequency within defined limits by balancing real power demand and supply in real-time.” Requirement R1 of this reliability standard provides the definition of area control error (“ACE”) and the limits established for control performance standard 1:

⁸ The Commission approved Version 6.1 of the standards development procedure on June 7, 2007. *Order on Compliance Filing*, 119 FERC ¶ 61,248 (2007).

⁹ ERO Certification Order at P 250.

¹⁰ NERC filed a petition on April 15, 2008, the second request by NERC seeking approval of a formal interpretation (b) to BAL-005-000, Requirement R17. NERC also withdrew its December 19, 2007 request for approval of formal interpretation (a) to BAL-005-0, Requirement R17.

Requirement R1. Each Balancing Authority shall operate such that, on a rolling 12-month basis, the average of the clock-minute averages of the Balancing Authority’s Area Control Error (ACE) divided by 10B (B is the clock-minute average of the Balancing Authority Area’s Frequency Bias) times the corresponding clock-minute averages of the Interconnection’s Frequency Error is less than a specific limit. This limit ϵ_1^2 is a constant derived from a targeted frequency bound (separately calculated for each Interconnection) that is reviewed and set as necessary by the NERC Operating Committee.

The stated purpose of BAL-003-0 — Frequency Response and Bias is to “provide a consistent method for calculating the Frequency Bias component of ACE.” Requirement R3 of this reliability standard addresses the use of tie-line frequency bias as the normal mode of automatic generation control used by balancing authorities:

Requirement R3. Each Balancing Authority shall operate its Automatic Generation Control (AGC) on Tie Line Frequency Bias, unless such operation is adverse to system or Interconnection reliability.

The stated purpose of BAL-005-0 — Automatic Generation Control, in relevant part, is that it “establishes requirements for Balancing Authority Automatic Generation Control (“AGC”) necessary to calculate Area Control Error (“ACE”).” Requirement R17 of this reliability standard states:

Requirement R17. Each Balancing Authority shall at least annually check and calibrate its time error and frequency devices against a common reference. The Balancing Authority shall adhere to the minimum values for measuring devices as listed below:

Device	Accuracy
Digital frequency transducer	≤ 0.001 Hz
MW, MVAR, and voltage transducer	≤ 0.25 % of full scale
Remote terminal unit	≤ 0.25 % of full scale
Potential transformer	≤ 0.30 % of full scale
Current transformer	≤ 0.50 % of full scale

The stated purpose of VAR-002-1 — Generator Operation for Maintaining Network Voltage Schedules is to “ensure generators provide reactive and voltage control necessary to

ensure that voltage levels, reactive flows, and reactive resources are maintained within applicable Facility Ratings to protect equipment and the reliable operation of the Interconnection.

Requirements R1 and R2 of this standard state:

Requirement R1. The Generator Operator shall operate each generator connected to the interconnected transmission system in the automatic voltage control mode (automatic voltage regulator in service and controlling voltage) unless the Generator Operator has notified the Transmission Operator.

Requirement R2. Unless exempted by the Transmission Operator, each Generator Operator shall maintain the generator voltage or Reactive Power output (within applicable Facility Ratings[]) as directed by the Transmission Operator.

IRO-006-4 – Reliability Coordination – Transmission Loading Relief

On December 21, 2007, NERC filed a petition seeking approval of IRO-006-4 — Reliability Coordination — Transmission Loading Relief (“TLR”), which includes (1) changes directed by the Commission related to the appropriateness of the NERC TLR Procedure with regard to mitigating violations of Interconnection Reliability Operating Limits (“IROLs”), and (2) changes associated with the transfer of the business practice aspects of the standard to the North American Energy Standards Board (“NAESB”). The stated purpose of the proposed reliability standard is “to provide for Interconnection-wide [TLR] procedures that can be used to prevent or manage potential or actual [system operating limit] SOL and IROL violations to maintain reliability of the Bulk Electric System.” Because other methods (such as local or regional procedures) may be more effective or efficient than an interconnection-wide procedure, the proposed reliability standard does not require the use of a specific method to address transmission congestion.

However, the requirements in the proposed reliability standard state that, when requesting Interconnection-wide congestion management, (i) entities in the Eastern Interconnection shall

use the “Transmission Loading Relief” procedure,¹¹ in concert with corresponding NAESB business practices; (ii) entities in the Western Interconnection shall use the “WECC-IRO-STD-006-0” regional reliability standard procedure (approved by the Commission on June 8, 2007),¹² and (iii) entities in the Texas Interconnection shall use the procedure specified in the ERCOT Protocols (published by ERCOT on December 22, 2006).

The proposed reliability standard consists of five requirements, summarized as follows:

Requirement R1. A Reliability Coordinator experiencing a potential or actual SOL or IROL violation may use one or more procedures to mitigate that potential or actual violation, including the specific Interconnection-wide procedures listed.

Requirement R2. A Reliability Coordinator may not invoke any procedure that the Reliability Coordinator does not have the right (either as granted by this reliability standard or given through contractual agreement) to invoke.

Requirement R3. A Reliability Coordinator must undertake any action directed pursuant to an Interconnection-wide procedure. If pre-approved by the ERO, a Reliability Coordinator may undertake substitute actions in place of those directed by the Interconnection-wide procedure.

Requirement R4. If an Interconnection-wide procedure directs actions that would result in the curtailment of an Interchange Transaction that either sources or sinks in a different Interconnection, Reliability Coordinators in the different Interconnections must act to curtail the transaction.

Requirement R5. Unless emergency action is required, any modifications to Interchange schedules must adhere to the normal Interchange scheduling standards.

Interchange Standards

On December 26, 2007, NERC filed a petition seeking approval of INT-001-3 — Interchange Information, INT-004-2 — Dynamic Interchange Transaction Modifications, INT-

¹¹ The “Transmission Loading Relief” procedure for the Eastern Interconnection is a multi-regional procedure that has been modified as part of this standard drafting as appropriate to support the changes resulting in IRO-006-4. Attachment 1 to the proposed reliability standard provides the details for the TLR Procedure used in the Eastern Interconnection.

¹² *Order Approving Regional Reliability Standards for the Western Interconnection and Directing Modifications*, 119 FERC ¶ 61,260 (June 8, 2007).

005-2 — Interchange Authority Distributes Arranged Interchange, INT-006-2 — Response to Interchange Authority, and INT-008-2 — Interchange Authority Distributes Status.

NERC submitted the changes to INT-001-3 and INT-004-2 to rescind the e-tagging waivers for the Western Electricity Coordinating Council (“WECC”) contained in earlier versions of the standards and that were processed as a single project. NERC filed reliability standards INT-004-1 and INT-001-2 for approval by the Commission on August 28, 2006 and November 15, 2006, respectively. That request for approval included the *WECC Tagging Dynamic Schedules and Inadvertent Payback Waiver* that exempted WECC from requirements related to tagging dynamic schedules and inadvertent payback that were in effect since November 21, 2002.

NERC submitted modifications to INT-005-2, INT-006-2 and INT-008-2 to address a specific reliability need identified by WECC. The proposed reliability standards for INT-005-1, INT-006-1, and INT-008-1 changed an aspect of the timing table commonly contained in each reliability standard and that were processed as a single project. The timeframe for applicable WECC entities to perform the reliability assessment increased from five (5) to ten (10) minutes for next hour interchange tags submitted in the first thirty (30) minutes of the hour before. That modification was needed because the majority of next hour tags in WECC are submitted between xx:00 and xx:30.

IV. DISCUSSIONS OF MAJOR ISSUES OUTLINED IN THE NOPR

In this section, NERC specifically addresses the issues raised by the Commission in its NOPR.

**a. Interpretations to BAL-001-0 — Real Power Balancing Control
Performance and BAL-003-0 — Frequency Response and Bias**

Commission Paragraphs

23. *The Commission proposes to approve the ERO's formal interpretation of Requirement R1 of BAL-001-0 and Requirement R3 of BAL-003-0.*

24. *The ERO's interpretation is reasonable because it clarifies that raw ACE must be used in NERC compliance reporting. Reporting of raw ACE is essential because a balancing authority could exceed ACE limits in BAL-001-0 if allowed to report an adjusted ACE that adds or subtracts amounts from the equation. This interpretation upholds the reliability goal of BAL-001-0, Requirement R1 to minimize the frequency deviation of the interconnection by constantly balancing supply and demand. The interpretation also clarifies that an entity may use automatic generation control modes layered on top of the tie-line frequency bias mode as long as the raw ACE is used in NERC compliance reporting. This would permit WECC to implement more stringent time error correction procedures that rely on additional control modes layered on top of the tie-line frequency bias mode of automatic generation control, provided they do not report adjusted ACE which, if reported, could produce ambiguous data used for frequency bias calculations. The interpretation maintains the goal of BAL-003-0, Requirement R3, by providing accurate historic data for frequency bias calculations and by using ACE calculations in automatic generation control that will adjust the generation, or demand-side resources where available, in the balancing authority area in a manner that maintains the interconnection frequency and does not result in an undue burden for any balancing authority. The Commission proposes to approve the ERO's interpretation based on the understanding that a balancing authority, in operating automatic generation control, must use tie-line frequency bias as its underlying control mode unless to do so is adverse to system or interconnection reliability.*

25. *In Order No. 693, the Commission stated that, according to the available data, the WECC automatic time error correction procedure is more effective in minimizing time error corrections and inadvertent interchange than the Reliability Standard BAL-004-0.¹³ Therefore, the ERO's interpretation provides balancing authorities using the WECC automatic time error correction procedure with necessary clarification and certainty in accordance with the continent-wide Reliability Standards BAL-001-0 and BAL-003-0. Accordingly, this interpretation appears to be just, reasonable, not unduly discriminatory or preferential, and in the public interest.*

¹³ *Mandatory Reliability Standards for the Bulk-Power System, Order No. 693, FERC Stats. & Regs. ¶ 31,242 at P 377 (2007), order on reh'g, 120 FERC ¶ 61,053 (2007) (Order No. 693-A).*

NERC Response

NERC supports the Commission's proposal to approve these interpretations as just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

b. Interpretation to BAL-005-0 – Automatic Generation Control

Commission Paragraph

6. The Commission proposes to approve NERC's interpretation (b) of BAL-005-0, Requirement R17. The Commission agrees that, as stated in interpretation (b), time error and frequency devices that serve as input into the reporting or compliance of the ACE equation, whether inside or outside the operations control room, must be annually checked and calibrated. In addition, the Commission notes that tie-line megawatt metering data is another important aspect of ensuring the accurate calculation of area control error (ACE), and interpretation (b) limits the specific accuracy requirements of Requirement R17 to frequency and time error measurement devices. We seek comment on whether interpretation (b): (1) could decrease the accuracy of frequency and time error measurements by not requiring calibration of tie-line megawatt metering devices;(2) what conditions would preclude the requirement to calibrate these devices; and (3) whether the accuracy of these devices is assured by other requirements within BAL-005-0 in the absence of calibration.¹⁴

NERC Response

NERC supports the Commission's proposal to approve this interpretation as just, reasonable, and not unduly discriminatory or preferential, and in the public interest. NERC also provides responses to the Commission's specific questions.

(1) Could the interpretation decrease the accuracy of frequency and time error measurements by not requiring calibration of tie-line megawatt metering devices?

No, tie line data is not an input into either time error or frequency and has no impact on the accuracy of these devices. It is possible the Commission intended to ask whether the interpretation adversely affects the accuracy of the Balancing Authority ACE calculation. If this is the question, then the answer is once again "No" from the Interconnection perspective.

¹⁴ May 16 Supplemental NOPR, 123 FERC ¶ 61,184 at P 6.

Calibration of tie line metering was historically included in the Guide section of NERC Operating Policy 1. The conversion of NERC policy to Version 0 in the reliability standards was not intended to convert guides to requirements, as this effort was intended to be a translation and not an effort to create new requirements. Prior to the advent of mandatory standards, guides were considered good utility practice. Calibration of tie line metering remains a sound practice. In addition, there are safeguards, checks, and balances in place to ensure that inadvertent flows within an Interconnection sum to zero, thus ensuring that errors in ACE are bounded to protect the Interconnections.

Additionally, BAL-005-0 Requirement R13 addresses tie-line meter accuracy:

“Each Balancing Authority shall perform hourly error checks using Tie Line megawatt-hour meters with common time synchronization to determine the accuracy of its control equipment. The Balancing Authority shall adjust the component (e.g., Tie Line meter) of ACE that is in error (if known) or use the interchange meter error (I_{ME}) term of the ACE equation to compensate for any equipment error until repairs can be made.”

(2) What conditions would preclude the requirement to calibrate these devices?

There are none. If the question relates to a possible new requirement to calibrate all tie line meters on a given schedule, it becomes a matter of submitting a Standards Authorization Request (“SAR”) and processing the SAR through the NERC Standards Development Process. During this process, the industry would need to consider committed resources to value received, risks to the interconnection, how the proposal helps provide for an adequate level of reliability, and any number of other questions that might be raised by industry stakeholders engaged in the development process. Given that a typical Balancing Authority has scores of tie lines and that, often, the technicians that maintain these devices also maintain relays, the industry may want to consider the best use of resources and how to avoid diverting scarce resources unless a case can

be made that present calibration practices present a significant risk to the reliability of the interconnection. NERC does not believe that to be the case.

(3) Whether the accuracy of these devices is assured by other requirements within BAL-005-0 in the absence of calibration.

No, the accuracy of these devices is not specifically assured by other requirements.

However, the requirements do provide several layers of overlapping protection in the standards and NERC processes to address potential tie line error. The best known are in the Balancing Area Criteria (metering section)¹⁵ originating in NERC's former Operating Policy Manual and now captured in BAL-005-0¹⁶ and in BAL-006-1¹⁷ pertaining to the Inadvertent Interchange Accounting Process.¹⁸

In accordance with BAL-005, Balancing Authorities are required to operate against common metering equipment with their neighbors. Should there be an error in a tie line metering, it would result in an error that is contained within the boundaries of the two impacted Balancing Authorities. There is no net balancing error imposed on the Interconnection as a whole.

The balancing standards also require an hourly check of integrated instantaneous versus hourly energy values (MWhr) and, if an error is found, direct the operators to make an interim

¹⁵ The NERC Operating Manual preceded the development of and served in part as the source for translation into the Version 0 Reliability Standards. The Operating Manual includes general information and reference documents on interconnected systems operation. (<http://www.nerc.com/~filez/operatingmanual.html>).

Control Area Criteria section B.2. of the Operating Manual states:

2. Metering. The CONTROL AREA shall have meters on all tie lines with adjacent CONTROL AREAS to record actual interchange (MW) in real time. INTERCHANGE meters shall be at a location common to both CONTROL AREAS, and provide identical values with opposite signs to both CONTROL AREAS. All CONTROL AREA interconnection points shall be equipped with common MWh meters, with readings provided hourly to the control centers of both CONTROL AREAS.

¹⁶ See Reliability Standard BAL-005-0 — Automatic Generation Control, Requirements R12, R12.1, and R13 (http://www.nerc.com/~filez/standards/Reliability_Standards_Regulatory_Approved.html).

¹⁷ See Reliability Standard BAL-006-1 — Inadvertent Interchange, Requirement R3 (http://www.nerc.com/~filez/standards/Reliability_Standards_Regulatory_Approved.html).

¹⁸ See Reliability Standard BAL-006-1 — Inadvertent Interchange, Requirements R2-R4 (http://www.nerc.com/~filez/standards/Reliability_Standards_Regulatory_Approved.html).

fix (Integrated Meter Error (I_{ME}) or Tie Line Metering adjustment) until final repairs are made.

While not required in the standards, most Balancing Authorities have secondary or backup metering for critical tie lines (those that carry a significant portions of the net interconnected flow) and also have state estimators that alert the operators if metering errors are detected. In addition, the NERC Resource Adequacy application¹⁹ provides alerts to Balancing Authorities and Reliability Coordinators on long-term frequency deviations that could be caused by tie line metering errors. In summary, NERC believes no further action is required, because there are safeguards in place at multiple locations in the NERC reliability standards and in current practices followed by Balancing Authorities to detect, correct and mitigate the impact of temporary calibration errors.

c. Interpretations to VAR-002-1 Generator Operation for Maintaining Network Voltage Schedules

Commission Paragraph

34. The Commission proposes to approve the ERO's interpretation of Requirement R1 and Requirement R2 of VAR-002-1. These interpretations appear to be reasonable and do not appear to change or conflict with the stated responsibilities set forth in the two requirements as approved in Order No. 693. Therefore, this interpretation appears to be just, reasonable, not unduly discriminatory or preferential, and in the public interest.

NERC Response

NERC supports the Commission's proposal to approve these interpretations as just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

d. IRO-006-4 – Reliability Coordination – Transmission Loading Relief

47. The Commission proposes to approve Reliability Standard IRO-006-4 as just, reasonable, not unduly discriminatory or preferential, and in the public interest.

¹⁹ See Consortium for Electric Reliability Technology Solutions (CERTS) ACE-Frequency Real-Time Monitoring System (<http://eetd.lbl.gov/certs/certs-rt-rat.html>).

In addition, the Commission proposes to direct the ERO to modify certain violation risk factors that correspond to the Requirements of the Reliability Standard.

NERC Response

NERC supports the Commission's proposal to approve this reliability standard as just, reasonable, and not unduly discriminatory or preferential, and in the public interest. With respect to the Commission's proposed changes to the Violation Risk Factor assignments for requirement R1 through R4, NERC urges adoption of the assignments in its original proposal included in the December 21, 2007.

i. Content of Standard

Commission Paragraphs

48. NERC's proposal implements the Commission's directives (1) to include a clear warning that the TLR procedure is an inappropriate and ineffective tool to mitigate actual IROL violations; and (2) to identify in a requirement the available alternatives to mitigate an IROL violation. Specifically, Requirement R1.1 of IRO-006-4 states, "The TLR procedure alone is an inappropriate and ineffective tool to mitigate an IROL violation due to the time required to implement the procedure. Other acceptable and more effective procedures to mitigate actual IROL violations include: reconfiguration, redispatch, or load shedding." The Commission proposes to approve this standard based on the interpretation that using a TLR procedure alone to mitigate an IROL violation is a violation of the reliability standard.

49. Further, the proposed division between NERC and NAESB business practices seems to be reasonable and appears to pose no harm to reliability. The Commission has long supported the coordination of business practices and reliability standards. As early as May 2002, the Commission urged the industry expeditiously to establish the procedures for ensuring coordination between NAESB and NERC.²⁰ The Commission asks for comments on whether any compromise in the reliability of the Bulk-Power System may result from the removal and transfer to NAESB of the business-related issues formerly contained in reliability standard IRO-006.

²⁰ *Electricity Market Design and Structure*, 99 FERC ¶ 61,171, at P 22 (2002); see also *Standards for Business Practices and Communication Protocols for Public Utilities*, Order No. 676, FERC Stats. & Regs. ¶ 31,216, at P 6 (2006).

NERC Response

NERC supports the Commission's proposal to approve this reliability standard as just, reasonable, and not unduly discriminatory or preferential, and in the public interest. NERC and NAESB have developed IRO-006-4 and the associated business practice standards collaboratively through a joint NERC-NAESB drafting team. NERC believes there is no compromise in the reliability of the Bulk Power System expected as a result of the removal and transfer to NAESB of the business-related issues formerly contained in reliability standard IRO-006-3. NERC notes that, in some cases, there are minor differences in terminology and language. NERC does not believe that these differences affect the ability to successfully implement the standards as written. However, NERC recognizes that differences between NERC and NAESB language can be confusing to the industry. To address this issue, NERC and NAESB are working to develop more in-depth coordination procedures to ensure that language is more consistent between both organizations. NERC's Standards Committee has tasked its Process Subcommittee to review and, if necessary, recommend improvements to NERC/NAESB coordination procedures.

In addition, NERC concurs with the view expressed in the concurring statement to the NOPR by Commissioners Wellinghoff and Kelly that NERC did not intend the list of alternatives to TLR procedures in IRO-006-4 to be an exhaustive one. Effective demand-side response could also be considered. With respect to the directives in Order No. 693 pertaining to demand-side resources, NERC continues to process changes to the IRO-006-3 standard as part of subsequent phases of Project 2006-08 in NERC's three-year standards work plan. The remaining Commission directives pertaining to this reliability standard will be addressed as part of this

activity, including that pertaining to explicit identification of demand-side resources in emergency plans.

ii. Violation Risk Factors

Commission Paragraphs

50. Violation risk factors delineate the relative risk to the Bulk-Power System associated with the violation of each Requirement and are used by NERC and the Regional Entities to determine financial penalties for violating a Reliability Standard. NERC assigns a lower, medium, or high violation risk factor for each mandatory Reliability Standard Requirement.²¹ The Commission also established guidelines for evaluating the validity of each Violation Risk Factor assignment.²²

51. The Commission is concerned regarding the violation risk factors submitted with IRO-006-4. While the approved violation risk factors for IRO-006-0 Requirement R2 through Requirement R6 are all “high,”²³ NERC proposes to revise violation risk factors for similarly-worded Requirements R1 through R5 of IRO-006-4 to “lower” or “medium.” Sub-requirements R1.1 through R1.3 are explanatory text; therefore, we propose that a violation risk factor need not be assigned to them. For consistency with the Commission’s five guidelines discussed above, the Commission proposes to direct the ERO to modify the violation risk factors assigned to Requirements R1 through R4 to “high.” We discuss our concerns below.

52. The Commission disagrees with the ERO that Requirement R1 is administrative in nature in describing how a reliability coordinator may choose a procedure to provide transmission loading relief. Requirement R1, as well as Requirement R2 through R4, goes beyond merely providing procedural choices for transmission loading relief, as the ERO asserts. Requirements R1 through R4 require that a reliability coordinator choose and follow the appropriate procedure to provide relief. If the reliability coordinator chooses an unapproved and ineffective procedure for relief or fails to choose a procedure entirely, potential or actual IROLs will not be mitigated as intended by the reliability coordinator. Failure to implement the proper TLR procedure likely would lead to

²¹ The definitions of “high,” “medium,” and “lower” are provided in *North American Electric Reliability Corp.*, 119 FERC ¶ 61,145, at P 9 (Violation Risk Factor Order), *order on reh’g*, 120 FERC ¶ 61,145 (2007) (*Violation Risk Factor Order on Rehearing*).

²² The guidelines are: (1) consistency with the conclusions of the Blackout Report; (2) consistency within a reliability standard; (3) consistency among reliability standards; (4) consistency with NERC’s definition of the violation risk factor level; and (5) treatment of requirements that co-mingle more than one obligation. The Commission also explained that this list was not necessarily all-inclusive and that it retains the flexibility to consider additional guidelines in the future. A detailed explanation is provided in *Violation Risk Factor Order on Rehearing*, 120 FERC ¶ 61,145 at PP 8-13.

²³ The violation risk factors for these requirements were submitted by NERC on February 23, 2007, and they were approved in the Violation Risk Factor Order.

IROL violations, which could lead to cascading outages. The implementation of the TLR procedure shares a similar reliability goal as other Reliability Standard requirements that keep the transmission system within IROLs, thus presenting a similar reliability risk and violation risk factor, if violated.

53. With respect to IRO-006-4, Requirement R1, the ERO states that, provided the reliability coordinator is adhering to the requirements in IRO-005-1, there is no significant risk to the reliability of the Bulk-Power System as a result of a violation of Requirement R1 of IRO-006-4. We disagree. The violation risk factor of a requirement represents the risk a violation of that requirement presents to the reliability of the Bulk-Power System. Violation risk factors should not be assigned differently for requirements in separate Reliability Standards based on compliance with another standard. Two requirements either achieve separate reliability goals and, therefore, violation of them represents independent risks, or two requirements share the same reliability goal. As stated in Guideline 3 of the Violation Risk Factor Order,²⁴ the Commission expects that the assignment of violation risk factors corresponding to requirements that address similar reliability goals in different Reliability Standards would be treated comparably.

54. Furthermore, a “high” violation risk factor assignment for Requirements R1 through R4 is consistent with findings of the Final Blackout Report. The report highlights that, generally, “TLRs are intended as a tool to prevent the system from being operated in an unreliable state and are not applicable in real-time emergency situations.”²⁵ As a result, Recommendation No. 31 in the Final Blackout Report was developed to clarify that the TLR procedure should not be used in situations involving an actual violation of an operating security limit.

55. A medium or lower violation risk factor has been approved for the Reliability Standards in the Interchange Scheduling and Coordination (INT) family of Reliability Standards. Requirement R5 of IRO-006-4 complements the INT group of Reliability Standards and, thus, appears to be appropriately assigned a medium violation risk factor.

56. The added “Measures” and other revisions embedded in proposed Reliability standard IRO-006-4 do not appear to substantively change the earlier, Commission approved version (i.e., IRO-006-3).

57. In summary, proposed Reliability Standard IRO-006-4 appears to be just, reasonable, not unduly discriminatory or preferential, and in the public interest. Accordingly, the Commission proposes to approve Reliability Standard IRO-006-4 as mandatory and enforceable. In addition, the Commission proposes to direct the ERO to modify the violation risk factors, as described above.²⁶

²⁴ 119 FERC ¶ 61,145 at P 25.

²⁵ *Final Blackout Report* at 62 available at <https://reports.energy.gov/BlackoutFinal-Web.pdf>.

²⁶ Although “time horizons,” which relate to the immediacy of the risk posed by a violation of a requirement, are included in this Reliability Standard, we do not propose to rule on the time horizons in this rulemaking. On March 3,

NERC Response

NERC developed these Violation Risk Factors in accordance with the Commission-approved *Reliability Standards Development Procedure*, Version 6.1, located as Appendix 3A of NERC's Rules of Procedure.

NERC believes the Commission's reliance on the Violation Risk Factor assignments for Requirements R1 through R4 from previous versions of the reliability standards is not appropriate. NERC developed the Violation Risk Factor assignments it submitted in 2007 using a process whereby the industry stakeholders considered and vetted the Violation Risk Factors in large groups. NERC stated then that the standard drafting teams associated with the projects in NERC's standards work plan would provide a more specific review of the assignments in the context of their individual projects and with respect to the new or revised standards being proposed. That is the case with the proposed standard, IRO-006-4. Its Violation Risk Factors have received significant industry review and scrutiny, and NERC supports their determination.

Requirement R1

Specifically, with regard to Requirement R1, the Commission states that sub-requirements R1.1 through R1.3 are explanatory text and proposes that a Violation Risk Factor not be assigned to each. NERC agrees that a Violation Risk Factor need not be assigned to each sub-element. The sub-elements only add specificity to the main Requirement R1, and entities that do not adhere to them should be considered in violation of R1.

Because IRO-006-4 Requirement R1 and its sub-requirements are focused on how the relief is achieved, rather than whether the relief is achieved, NERC sees this provision as being

2008, in Docket No. RR08-4-000, NERC submitted proposed violation severity levels corresponding to the Requirements of 83 Commission-approved reliability standards. The Commission will address the violation severity levels regarding IRO-006-4 in that proceeding.

one that is procedural in nature, although the result of an ineffective application of this requirement could impact the electrical state of the grid. Other obligatory mechanisms are available per IRO-005-1 Requirement R5 to deal with a potential (and actual) IROL violation. IRO-005-1 Requirement R5 is the principle source of the Reliability Coordinator's obligation to relieve actual or potential IROL violations and states:

Each Reliability Coordinator shall identify the cause of any potential or actual SOL or IROL violation. The Reliability Coordinator shall initiate the control action or emergency procedure to relieve the potential or actual IROL violation without delay, and no longer than 30 minutes. The Reliability Coordinator shall be able to utilize all resources, including load shedding, to address an IROL violation.

If a Reliability Coordinator is successful in utilizing an alternate procedure to achieve the relief desired, the risk to the grid is lessened by the Reliability Coordinator action taken even if the chosen procedure was not the most appropriate. To the extent such a procedure did not provide the required relief, the Reliability Coordinator would be in violation of IRO-005-1, Requirement 5. Accordingly, NERC believes this Requirement R1 merits a "Medium" Violation Risk Factor as proposed.

In paragraph 54, the Commission concludes that Requirements R1 through R4 are of "High" risk based on findings the Final Blackout Report. Recommendation No. 31 of the Final Blackout Report states in part:

Clarify that the transmission loading relief (TLR) process should not be used in situations involving an actual violation of an Operating Security Limit. Streamline the TLR process. NERC should clarify that the TLR procedure is often too slow for use in situations in which an affected system is already in violation of an Operating Security Limit. NERC should also evaluate experience to date with the TLR procedure and propose by September 1, 2004, ways to make it less cumbersome. The reviews of control area and reliability coordinator transcripts from August 14 confirm that the TLR process is cumbersome, perhaps unnecessarily so, and not fast and predictable enough for use situations in which an Operating Security Limit is close to or actually being violated. NERC should

*develop an alternative to TLRs that can be used quickly to address alert and emergency conditions.*²⁷

NERC believes the main thrust of the blackout recommendation regarding the use of TLR in response to actual violations has been addressed in the proposed reliability standard in Requirement R1.1 and does not warrant a “High” designation as discussed earlier.

Requirement R2

IRO-006-4, Requirement R2 reads as follows:

The Reliability Coordinator shall only use local transmission loading relief or congestion management procedures to which the Transmission Operator experiencing the potential or actual SOL or IROL violation is a party. [Violation Risk Factor: Low] [Time Horizon: Operations Planning]

This requirement specifies that a Reliability Coordinator may only utilize local procedures to which the Transmission Operator is a participant. While NERC believes that a Reliability Coordinator attempting to implement local procedure to which the particular Transmission Operator is not party would not be successful, NERC does not believe that the successful implementation of such a procedure would in itself create a “High” reliability risk. If the Reliability Coordinator were able to achieve the relief, then it would be considered as having the lesser infraction of using the wrong tools to achieve the correct results. To the extent such a procedure did not provide the required relief, the Reliability Coordinator would be in violation of IRO-005-1, Requirement R5. This requirement is focused on “how” the relief is provided, not “whether” the relief is provided. In addition, the use of a local procedure is implemented at the discretion of the Reliability Coordinator and is not obligatory. Accordingly, NERC believes that a Violation Risk Factor of “Lower” to be appropriate.

²⁷ *Final Blackout Report R31 at 163.*

Requirement R3

Requirement R3 reads as follows:

Each Reliability Coordinator with a relief obligation from an Interconnection-wide procedure shall follow the curtailments as directed by the Interconnection-wide procedure. A Reliability Coordinator desiring to use a local procedure as a substitute for curtailments as directed by the Interconnection-wide procedure shall obtain prior approval of the local procedure from the ERO.

This Requirement specifies that a Reliability Coordinator must implement the actions requested of it as part of an Interconnection-wide procedure, and that if it wishes to take alternate actions in lieu of those requested, it must obtain ERO approval to do so in advance. NERC maintains that this Requirement is focused on the procedural aspects of the standard (“how” the relief is provided or whether the “how” was authorized, rather than “whether” the relief was provided). As written, if the entity is able to achieve the relief through other means that were not pre-approved, then it would have committed an administration violation of using the wrong tools to achieve the correct results. To the extent such a procedure did not provide the required relief, the Reliability Coordinator would be in violation of IRO-005-1, Requirement R5. Similar to Requirement R2, NERC believes a Violation Risk Factor of “Lower” to be appropriate.

Requirement R4

Requirement R4 reads as follows:

When Interconnection-wide procedures are implemented to curtail Interchange Transactions that cross an Interconnection boundary, each Reliability Coordinator shall comply with the provisions of the Interconnection-wide procedure.

With regard to IRO-006 Requirement R4, NERC maintains that the appropriate Violation Risk Factor for this requirement is “Medium.” A violation of Requirement R4 is a specific kind of violation of the INT family of standards that is being caused by a Reliability Coordinator’s

inaction, resulting in an imbalance in one or both of the Interconnections involved. As such, NERC believes that Requirement R4 complements the INT group of reliability standards in the same fashion as Requirement R5, which the Commission supported at a Violation Risk Factor of “Medium.”

e. Modification to Five “Interchange and Scheduling” reliability standards

INT-001-3 – Interchange Information and INT-004-2 – Dynamic Interchange Transaction Modifications

Commission Paragraphs

61. In May 2007, WECC requested that NERC rescind the regional difference, referred to as e-tagging waivers,²⁸ for Reliability Standards INT-001-2 and INT-004-1. According to NERC, WECC has developed business practices for dynamic schedules and has taken the steps needed to comply with the e-tagging of inadvertent payback interchange schedules. Thus, WECC determined that it no longer needs the e-tagging waivers.

63. NERC states that simply rescinding these waivers will not result in structural changes to the requirements in the current Commission-approved version of the Reliability Standards and will maintain uniformity. Further, we note that WECC agrees that it no longer needs to retain the waivers.²⁹ Accordingly, the Commission proposes to approve INT-001-3 and INT-004-2.

NERC Response

NERC supports the Commission’s proposal to approve these reliability standards as just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

²⁸ An E-tag represents a transaction on the North American bulk electricity market scheduled to flow within, between, or across electric utility company territories electronically. This is done so that transmission system operators can ascertain all of the transactions impacting their local system and take any corrective actions to alleviate situations that could put the power grid at risk of damage or collapse.

²⁹ NERC December 26, 2007 Filing at 5-6.

INT-005-2 – Interchange Authority Distributes Arranged Interchange, a. INT-006-2 – Response to Interchange Authority, and INT-008-2 – Interchange Authority Distributes Status

Commission Paragraphs

70. NERC explains that the proposed Reliability Standards for INT-005-2, INT-006-2, and INT-008-2 would increase the timeframe for applicable WECC entities to perform the reliability assessment from five to ten minutes for next hour interchange tags submitted in the first thirty minutes of the hour before. According to NERC, this modification is needed because the majority of next-hour tags in WECC are submitted between xx:00 and xx:30. NERC explains that the existing five minute assessment window makes it nearly impossible for balancing authorities and transmission service providers to review each tag before the five minute assessment time expires. NERC maintains that, when the time expires, the tags are denied and must be resubmitted.

74. The Commission proposes to approve INT-005-2, INT-006-2, and INT-008-2. The only change proposed to these Reliability Standards is the reliability assessment period for WECC.³⁰

NERC Response

NERC supports the Commission’s proposal to approve these reliability standards as just, reasonable, and not unduly discriminatory or preferential, and in the public interest.

V. CONCLUSIONS AND ACTIONS REQUESTED OF THE COMMISSION

NERC appreciates the opportunity to submit these comments and urges the Commission to take action consistent with the comments herein. Specifically, NERC proposes that the Commission take the following action in its Final Rule:

1. NERC requests that the Commission approve the five interpretations to BAL-001-0, BAL-003-0, BAL-005-0, and VAR-002-1.
2. NERC requests that the Commission approve IRO-006-4, reliability standard with the Violation Risk Factors as originally submitted.

³⁰ The Commission notes that NERC’s compliance with Order No. 693, with respect to Reliability Standard INT-006-1, is ongoing. See Order No. 693 at P 866.

3. NERC requests that the Commission approve INT-001-3, INT-004-2, INT-005-2, INT-006-2 and INT-008-2 reliability standards.

Respectfully submitted,

/s/ Rebecca J. Michael

Rick Sergel
President and Chief Executive Officer
David N. Cook
Vice President and General Counsel
North American Electric Reliability Corporation
116-390 Village Boulevard
Princeton, NJ 08540-5721
(609) 452-8060
(609) 452-9550 – facsimile
david.cook@nerc.net

Rebecca J. Michael
Assistant General Counsel
North American Electric Reliability
Corporation
1120 G Street, N.W., Suite 990
Washington, D.C. 20005-3801
(202) 393-3998
(202) 393-3955 – facsimile
rebecca.michael@nerc.net

CERTIFICATE OF SERVICE

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

Dated at Washington, D.C. this 12th day of June, 2008.

/s/ Rebecca J. Michael

Rebecca J. Michael

*Attorney for North American Electric
Reliability Corporation*