



NORTH AMERICAN ELECTRIC  
RELIABILITY CORPORATION

February 14, 2011

**VIA ELECTRONIC FILING**

Ms. Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

ATTN: Mr. Eugene Blick, FERC Office of Electric Reliability

**Re: North American Electric Reliability Corporation Docket No. RM10-29-000 -  
Interpretation of Reliability Standard TOP-001-1 Requirement R8**

Dear Ms. Bose:

The North American Electric Reliability Corporation (“NERC”) respectfully submits this Response to the Federal Energy Regulatory Commission’s (“FERC” or the “Commission”) January 28, 2011 Request for Data (“Data Request”) in the above captioned proceeding regarding NERC’s July 16, 2010 petition seeking approval for an interpretation of Requirement R8 of NERC Reliability Standard TOP-001-1 – Reliability Responsibilities and Authorities (TOP-001-1). Requirement R8 of TOP-001-1 provides:

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

The request for interpretation, made by Florida Municipal Power Pool (“FMPP”), requested clarification on several aspects of Requirement R8. FMPP’s request was as follows:

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

In the January 28, 2011 Data Request, FERC requested responses to the following questions:

1. Under the proposed interpretation, is there any joint responsibility to balance real and reactive power during emergencies? Please identify portions of the development record that may support or oppose joint responsibility.
2. Under NERC’s proposed interpretation for TOP-001-1, Requirement R8, please explain whether or to what extent the divided responsibilities produce a reliability gap with respect to communication and coordination of issues and actions. In this regard, the Blackout Report identifies communication and coordination issues as reliability issues.<sup>1</sup> To the extent you believe no reliability gap exists, your answer should identify and explain how other existing reliability standards and requirements ensure such communication and coordination.

#### **NERC RESPONSE:**

The drafting team assigned to draft the response to the request for interpretation pertaining to Reliability Standard TOP-001-1 Requirement R8 (“interpretation drafting team” or “IDT”) was provided the following guidelines for developing a response to a request for interpretation:<sup>2</sup>

The interpretation drafting team should adhere to the following general principles in developing its response to the request for interpretation proposed for ballot:

---

<sup>1</sup> Final Report on the August 14, 2003 Blackout in the United States and Canada: Causes and Recommendations, pp. 27, 47 and 49 (April 5, 2004) (“Final Blackout Report”).

<sup>2</sup> Note that NERC’s guidelines have since been superseded by resolution from the NERC Board of Trustees. However, the guidelines noted above were in force at the time the interpretation proposed for approval in the above referenced was developed and submitted to FERC for approval.

1. All meetings of the interpretation drafting team must be open and publicly noticed.
2. The interpretation drafting team must consider the purpose of the standard as the basis for developing the interpretation response.
3. For the issue under consideration and from an engineering point of view, the team must identify what approach best serves the interest of reliability.
4. With a clear understanding of the standard's purpose and the technical engineering approach that best serves reliability, the team must judge whether the standard as written can be interpreted consistent with these interests using the following principles:
  - a. The interpretation cannot change the requirement or standard. That is, the interpretation cannot expand the scope of the requirement beyond the language in the requirement.
  - b. The interpretation must address the question posed or the team must explain why it cannot address the question.
  - c. The interpretation drafting team has full latitude to respond to a question using other reliability standards requirements that were not identified specifically in the request if that information addresses the issue.
  - d. The interpretation itself must add clarity and not be ambiguous or subject to interpretation.
  - e. The interpretation should address the intent of the requirement and the best interest of reliability.
  - f. The interpretation of the requirement, which if implemented by the applicable entities, will provide for a reliable bulk power system, consistent with good utility practice and the public interest. This intends that the interpretation will not lower the current level of compliance to the requirement by the applicable entities.
5. The interpretation drafting team must provide sound technical justification to support an interpretation that will be included as supporting information for industry consideration when the interpretation is balloted and ultimately filed with regulatory authorities.
6. If the team determines that it cannot interpret the standard as written and that changes to one or more requirements are necessary to fully address the questions posed, or the team determines that the standard as written or interpreted does not support the best interest of reliability, the drafting team should draft a SAR with accompanying changes to the standard to resolve the issue or close the reliability gap and submit with the team's response."



The IDT adhered to the guidelines noted above in developing the response to FMPPs request for interpretation of TOP-001-1 Requirement R8. Accordingly, NERC hereby responds to the Commission's specific questions in the Data Request as follows:

**1. Under the proposed interpretation, is there any joint responsibility to balance real and reactive power during emergencies? Please identify portions of the development record that may support or oppose joint responsibility.**

The IDT did not address the issue of joint responsibilities to balance real and reactive power during emergencies because the question was not within the scope of the interpretation request. The IDT only considered the question presented in the request for interpretation. Specifically, the IDT focused on the question of, for Requirement R8, whether the Balancing Authority is responsible to immediately take corrective action to restore Real Power balance, and whether the Transmission Operator is responsible to immediately take corrective action to restore Reactive Power Balance.

The word 'joint' in the question posed by the Commission implies shared responsibilities between the Balancing Authority and the Transmission Operator. However, TOP-001-1, Requirement R8 specifically provides that “[d]uring a system emergency, the Balancing Authority and Transmission Operator shall immediately take action to restore Real and Reactive Power Balance.” The word “joint” was specifically not used in the requirement, recognizing that Balancing Authorities and Transmission Operators both have separate, but important, responsibilities in restoring Real and Reactive Power Balance in system emergencies. To infer joint responsibility would: (1) change a requirement of the standard by inferring that “joint responsibility” is mandated by Requirement R8, which is a violation of guideline 4.a. noted above; and (2) modify the intent of Requirement R8 by inferring that joint responsibility between



the Balancing Authority and the Transmission Operator is implied, which is a violation of guideline 4.e., noted above.

TOP-001-1 Requirement R8 is a Version 0 requirement that was translated from the original NERC Policies where the term ‘Control Area’ was replaced with ‘Balancing Authority and Transmission Operator.’ The Control Area performed functions that today are performed separately by Balancing Authorities and Transmission Operators. Historically, vertically integrated utilities fulfilled all the obligations of a Control Area. With the advent of deregulation, however, these functions became separated in many companies and, in some cases, were even spun off into other companies as generation and transmission assets were divested. When the Version 0 standards were written, the separation of Control Area functions was not accurately translated to the requirements of the Reliability Standards. In TOP-001-1, Requirement R8, the Control Area was responsible for performing responsibilities associated with the functional entities that are today performed by Balancing Authorities and Transmission Operators. That is, maintaining the real power balance is the Balancing Authority’s responsibility and maintaining the reactive power balance is the Transmission Operator’s responsibility.

Today there are entities that are registered and operate only as Balancing Authorities or only as Transmission Operators. Therefore, there are Transmission Operators that have no direct control over real power injection and could not comply with a requirement to balance real power. Similarly, there are Balancing Authorities that have no direct control over reactive power devices and have no visibility of transmission information such as voltage and reactive power flows; and consequently could not comply with a requirement to balance reactive power. The NERC Functional Model reflects this segregation of functions.

For these reasons, asserting that TOP-001-1 Requirement R8 mandates (or should mandate) that Balancing Authorities should be required to jointly manage reactive power injections with the Transmission Operators, and Transmission Operators should be required to jointly manage real power injections with the Balancing Authorities is beyond the scope of the interpretation in question. Stakeholders overwhelmingly agreed with the IDT's response to the request for interpretation, approving it with a 98.27% vote. Accordingly, for the reasons noted above, requiring joint responsibility to balance real and reactive power during emergencies is not necessary for bulk power system reliability and goes beyond the original intent and scope of the interpretation requested associated with TOP-001-1 Requirement R8.

- 2. Under NERC's proposed interpretation for TOP-001-1, Requirement R8, please explain whether or to what extent the divided responsibilities produce a reliability gap with respect to communication and coordination of issues and actions. In this regard, the Blackout Report identifies communication and coordination issues as reliability issues.<sup>3</sup> To the extent you believe no reliability gap exists, your answer should identify and explain how other existing reliability standards and requirements ensure such communication and coordination.**

As explained above, the interpretation response developed by the IDT addressed only the question asked and was only provided to clarify the intent of the standard. The IDT determined in its development of a response to the interpretation that as long as each responsible entity performs its tasks and follows all applicable requirements, there is no reliability gap.

The Blackout Report correctly identifies communication and coordination issues as reliability issues. However, communication and coordination issues are addressed in the Communications (COM) standards associated with the standards development projects referenced below. The use of the word "and" in TOP-001-1, Requirement R8 ("... between Balancing Authority and Transmission Operator ...") should not be construed as introducing

---

<sup>3</sup> Final Blackout Report at pp. 27, 47 and 49.

communication or coordination aspects to these functional entities. Existing standards that address communications and coordination include COM-001-1.1 – Telecommunications, and COM-002-2 – Communication and Coordination.

Additionally, there are three standards development projects currently underway that are working in a coordinated fashion to clarify and strengthen the requirements around communication and coordination between functional entities. These are:

- Project 2006-06 Reliability Coordination, that addresses the following standards:
  - COM-001-1 — Telecommunications
  - COM-002-2 — Communications and Coordination
  - IRO-001-1 — Reliability Coordination — Responsibilities and Authorities
  - IRO-002-1 — Reliability Coordination — Facilities
  - IRO-003-2 — Reliability Coordination –Wide-Area View Needs
  - IRO-005-2 — Reliability Coordination — Current-Day Operations
  - IRO-014-1 — Procedures, Processes, or Plans to Support Coordination Between Reliability Coordinators
  - IRO-015-1 — Notifications and Information Exchange Between Reliability Coordinators
  - IRO-016-1 — Coordination of Real-time Activities Between Reliability Coordinators
- Project 2007-02 — Operating Personnel Communications Protocols, that addresses the following standard:
  - COM-003-1 — Operating Personnel Communications Protocols
- Project 2007-03 Real-time Transmission Operations, that addresses the following standards:
  - PER-001-0 — Operating Personnel Responsibility and Authority
  - TOP-001-1 — Reliability Responsibilities and Authorities
  - TOP-002-2 — Normal Operations Planning
  - TOP-003-0 — Planned Outage Coordination
  - TOP-004-1 — Transmission Operations
  - TOP-004-2 — Transmission Operations
  - TOP-005-1 — Operational Reliability Information
  - TOP-006-1 — Monitoring System Conditions
  - TOP-007-0 — Reporting SOL and IROL Violations
  - TOP-008-1 — Response to Transmission Limit Violations

Accordingly, TOP-001-1 Requirement R8 appropriately provides for the restoration of real and reactive power balance during system emergencies by Balancing Authorities and Transmission Operators. Given this, there is no reliability gap with respect to communication and coordination of issues and actions as a result of the separate responsibilities of the Balancing Authorities and Transmission Operators. For these reasons, NERC respectfully requests that the proposed interpretation to TOP-001-1, Requirement R8 be approved by the Commission.

Respectfully submitted,

/s/ Holly. A Hawkins

Gerald W. Cauley  
President and Chief Executive Officer  
David N. Cook  
Senior 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

Holly A. Hawkins  
Attorney  
North American Electric Reliability  
Corporation  
1120 G Street, N.W.  
Suite 990  
Washington, D.C. 20005-3801  
(202) 393-3998  
(202) 393-3955 – facsimile  
holly.hawkins@nerc.net