

June 16, 2016

VIA ELECTRONIC FILING

David Erickson
President and Chief Executive Officer
Alberta Electric System Operator
2500, 330 - 5 Avenue SW
Calgary, Alberta
T2P 0L4

Re: *North American Electric Reliability Corporation*

Dear Mr. Erickson:

The North American Electric Reliability Corporation hereby submits Supplemental Information for Notice of Filing of the North American Electric Reliability Corporation of Proposed Reliability Standards BAL-005-1 and FAC-001-3.

Please contact the undersigned if you have any questions concerning this filing.

Respectfully submitted,

/s/ Holly A. Hawkins

Holly A. Hawkins
*Associate General Counsel for the North
American Electric Reliability Corporation*

Enclosure

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**BEFORE THE
ALBERTA ELECTRIC SYSTEM OPERATOR**

**NORTH AMERICAN ELECTRIC)
RELIABILITY CORPORATION)**

**SUPPLEMENTAL INFORMATION FOR NOTICE OF FILING OF THE
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION OF PROPOSED
RELIABILITY STANDARDS BAL-005-1 AND FAC-001-3**

The North American Electric Reliability Corporation (“NERC”) hereby submits supplemental information (“Supplement”) to its May 3, 2016 notice of proposed Reliability Standards BAL-005-1 (Balancing Authority Control) and FAC-001-3 (Facility Interconnection Requirements) (the “Filing”). This Supplement provides additional information supporting the proposed retirement of Requirement R15 of Reliability Standard BAL-005-0.2b.

I. SUPPLEMENTAL INFORMATION

In the Filing, NERC stated, “Requirements R2, R7, and R15 of currently effective BAL-005-0.2b are redundant, ineffective, and should be retired based on Paragraph 81 Criteria.”¹ Specific to Requirement R15, Exhibit I (BAL-005-1 Mapping Document) to the Filing provides that Requirements in Reliability Standard EOP-008-1 and the performance obligations in Requirement R3 of proposed Reliability Standard BAL-005-1 address the reliability objective of Reliability Standard BAL-005-0.2b, Requirement R15. The purpose of BAL-005-0.2b, Requirement R15 is to ensure continued operations of Automatic Generation Control (“AGC”) and certain data recording equipment during loss of the normal power supply. Specifically, Requirement R15 provides:

The Balancing Authority shall provide adequate and reliable backup power supplies and shall periodically test these supplies at the Balancing Authority’s control center

¹ *Filing* at 11.

and other critical locations to ensure continuous operation of AGC and vital data recording equipment during loss of the normal power supply.

The following is additional information on the manner in which Reliability Standard EOP-008-1 and Requirement R3 of proposed Reliability Standard BAL-005-1 achieve the reliability objective of Reliability Standard BAL-005-0.2b, Requirement R15.

1. The Backup Functionality Required by EOP-008-1 Addresses the Reliability Objective of Ensuring Continued Operation of AGC and Vital Data Recording Equipment

The purpose of Reliability Standard EOP-008-1 is to “ensure continued reliable operations of the Bulk Electric System (BES) in the event that a control center becomes inoperable.” To that end, the requirements of EOP-008-1 obligate each Balancing Authority, Reliability Coordinator, and Transmission Operator to, among other things:

- have an Operating Plan, which includes provisions for backup power sources, describing the manner in which it continues to meet its functional obligations with regard to the reliable operations of the BES in the event that its primary control center functionality is lost (Requirement R1);
- have a backup control center facility that provides the functionality required for maintaining compliance with all Reliability Standards that depend on primary control center functionality (Requirements R3 and R4);
- annually review and approve its Operating Plan for backup functionality (Requirement R5);
- have primary and backup functionality that do not depend on each other for the control center functionality required to maintain compliance with Reliability Standards (Requirement R6); and
- conduct and document results of an annual test of its Operating Plan that demonstrates: (1) the transition time between the simulated loss of primary control center functionality and the time to fully implement the backup functionality; and (2) the backup functionality for a minimum of two continuous hours (Requirement R7).

The reliability objective of BAL-005-0.2b, Requirement R15 that the Balancing Authority ensure continued operation of its AGC and data recording equipment is thus subsumed in the Requirements of EOP-008-1. Specifically, pursuant to EOP-008-1, Balancing Authorities must

have backup functionality to meet their functional obligations regarding reliable operations and to maintain compliance with applicable Reliability Standards, which includes continuous operation of AGC and data recording equipment necessary to balance generation and load, and satisfy their obligations under the BAL group of Reliability Standards (e.g., calculation of Reporting ACE). Accordingly, while EOP-008-1 does not specifically reference AGC or data recording devices, a Balancing Authority must provide for their continued operation under EOP-008-1, consistent with the obligation under BAL-005-0.2b, Requirement R15.

Under EOP-008-1, Requirement R1, Balancing Authorities must have an Operating Plan that addresses backup power supplies in the event its primary source of power is lost. Balancing Authorities have the flexibility to develop an Operating Plan for backup functionality that best suits their needs. Entities may include in their Operating Plan a requirement to have backup power supplies at their control center(s), as mandated by BAL-005-0.2b, Requirement R15. Should a Balancing Authority choose not to include such a provision in its Operating Plan or otherwise include other provisions for ensuring the continuous operation of AGC and vital data recording equipment during loss of the normal power supply, the Balancing Authority may be in violation of EOP-008-1, depending on the facts and circumstances.

Further, as in BAL-005-0.2b, Requirement R15, the Balancing Authority must, pursuant to Requirement R7 of EOP-008-1, annually test its Operating Plan for backup functionality to demonstrate that it may be timely implemented and that there is backup functionality for two continuous hours. The testing must include testing of the backup functionality of power sources.

Given the obligations of Balancing Authorities under EOP-008-1, BAL-005-0.2b, Requirement R15 is duplicative and, in turn, adds little to no reliability benefit. In accordance with the principles of Criteria B7 of Paragraph 81, BAL-005-0.2b, Requirement R15 should be

retired as “redundant with other requirements and...therefore, unnecessary.”² As stated in the Paragraph 81 Criteria, removal of this redundant requirement in BAL-005-0.2b will “result in an increase in efficiency of the ERO compliance program.”³

2. The Performance Obligations of Requirement R3 of Proposed Reliability Standard BAL-005-1 Will Also Help Meet the Reliability Objectives of BAL-005-0.2b, Requirement R15

In addition to the Requirements in EOP-008-1, proposed Reliability Standard BAL-005-1, Requirement R3 will also help ensure that Balancing Authorities continuously operate the equipment necessary for the calculation of Reporting Ace, as mandated by Requirement R15 of BAL-005-0.2b. Pursuant to BAL-005-1, Requirement R3, Balancing Authorities must “use frequency metering equipment for the calculation of Reporting ACE that is available a minimum of 99.95% for each calendar year.” Requirement R3 is a performance based requirement and, in turn, does not mandate the manner in which entities meet their performance obligation (e.g., by mandating backup power sources for such equipment). Nevertheless, under Requirement R3, the Balancing Authority must take the necessary steps to ensure that its AGC and data recording equipment operate on a continuous basis. Should a Balancing Authority fail to have adequate and reliable backup power supplies at its control center to ensure continuous operation of its AGC and vital data recording equipment, the Balancing Authority risks violating the performance obligation in proposed Reliability Standard BAL-005-1, Requirement R3 if its normal power supply is lost.

² *Notice of Filing of the North American Electric Reliability Corporation of Retirement of Requirements in Reliability Standards*, at Exhibit A

(“Paragraph 81 Criteria”) (filed March 19, 2013).

³ Paragraph 81 Criteria at Exhibit A, p. 1.

Respectfully submitted,

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