

Alberta Reliability Standard

Contingency Reserve for Recovery from a Balancing Contingency Event

BAL-002-AB-3



1. Purpose

The purpose of this **reliability standard** is to ensure the **ISO** balances resources and **demand** and returns the **area control error** to defined values, subject to applicable limits, following a reportable **balancing contingency event**.

2. Applicability

This **reliability standard** applies to:

- (a) the **ISO**, only in periods during which the **ISO** is not in active status under a **reserve sharing group** agreement or governing rules for a **reserve sharing group**.

3. Requirements

R1 The **ISO**, when it is experiencing a reportable **balancing contingency event** must:

R1.1 within the **contingency** event recovery period, demonstrate recovery by returning its **reporting area control error** to at least the recovery value of:

- (a) zero (if its pre-reporting **contingency** event **area control error** value was positive or equal to zero); or
- (b) its pre-reporting **contingency** event **area control error** value (if its pre-reporting **contingency** event **area control error** value was negative);

however, any **balancing contingency event** that occurs during the **contingency** event recovery period must reduce the required recovery: (i) beginning at the time of, and (ii) by the magnitude of, such individual **balancing contingency event**;

R1.2. document all reportable **balancing contingency events** using the form the **NERC** designates; and

R1.3. deploy **contingency reserve**, within system constraints, to respond to all reportable **balancing contingency events**; however, the **ISO** is not subject to compliance with requirement R1.1 if the **ISO**:

- R1.3.1**
 - (a) is experiencing an **ISO** declared energy emergency alert level;
 - (b) is using its **contingency reserve** to mitigate an operating emergency in accordance with its emergency operating plan;
 - (c) has depleted its **contingency reserve** to a level below its most severe single **contingency**; and
 - (d) intentionally left blank; or

- R1.3.2**
 - (a) experiences multiple **contingencies** where the combined MW loss exceeds its most severe single **contingency** and that are defined as a single **balancing contingency event**; or
 - (b) experiences multiple **balancing contingency events** within the sum of the time periods defined by the **contingency** event recovery period and **contingency** reserve restoration period whose combined magnitude exceeds the **ISO's** most severe single **contingency**.

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- R2** The ISO must develop, review, and maintain annually, and implement an operating process as part of its operating plan to determine its most severe single **contingency** and make preparations to have **contingency reserve** equal to, or greater than the ISO's most severe single **contingency** available for maintaining system **reliability**.
- R3** The ISO, following a reportable **balancing contingency event**, must restore its **contingency reserve** to at least its most severe single **contingency**, before the end of the **contingency reserve** restoration period, but any **balancing contingency event** that occurs before the end of a **contingency reserve** restoration period resets the beginning of the **contingency** event recovery period.

4. Measures

The following measures correspond to the requirements identified in section 3 of this **reliability standard**. For example, MR1 is the measure for requirement R1.

- MR1.1** Evidence of demonstrating the recovery of the **reporting area control error** as required in requirement R1.1 exists. Evidence may include documented reportable **balancing contingency events** using the designated form, or other equivalent evidence.
- MR1.2** Evidence of documenting all reportable **balancing contingency events** as required by requirement R1.2 exists. Evidence may include documented reportable **balancing contingency events** using the designated **NERC** form, or other equivalent evidence.
- MR1.3** Evidence of deploying **contingency** reserve, within system constraints, to respond to all reportable **balancing contingency events**, as required in requirement R1.3 exists. Evidence may include **directive** logs, phone calls, designated forms, or other equivalent evidence.
- MR2** Evidence of developing, reviewing, maintaining and implementing an operating process to determine the most severe single **contingency** and to have **contingency** reserves as required in requirement R2 exists. Evidence may include a dated operating process with a revision history, or other equivalent evidence.
- MR3** Evidence of restoring **contingency reserve** as required in requirement R3 exists. Evidence may include historical data, computer logs, operator logs, or other equivalent evidence.

Revision History

Date	Description
2019-07-01	Initial release.