

**Standard Development Roadmap**

*This section is maintained by the drafting team during the development of the standard and will be removed when the standard becomes effective.*

**Development Steps Completed:**

1. The SAR for Project 2007-18 Reliability Based Controls was posted for a 30 day formal comment period on May 15, 2007.
2. A revised SAR for Project 2007-05 Reliability Based Controls was posted for a second 30 day formal comment period on September 10, 2007.
3. The Standards Committee approved Project 2007-18 Reliability Based Controls to be moved to standard drafting on December 11, 2007.
4. The SAR for Project 2007-05 Balancing Authority Controls was posted for a 30 day formal comment period on July 3, 2007.
5. The Standards Committee approved Project 2007-05 Balancing Authority Controls to be moved to standard drafting on January 18, 2008.
6. The Standards Committee approved the merger of Project 2007-05 Balancing Authority Controls and Project 2007-18 Reliability-based Control as Project 2010-14 Balancing Authority Reliability-based Controls on July 28, 2010.
7. The NERC Standards Committee approved breaking Project 2010-14 Balancing Authority Reliability-based Controls into two phases and moving Phase 1 (Project 2010-14.1 Balancing Authority Reliability-based Controls – Reserves) into formal standards development on July 13, 2011.

**Proposed Action Plan and Description of Current Draft:**

This is the first posting of the proposed new standard in accordance with Results-Based Criteria. This proposed draft standard will be posted for a 30-day formal comment period beginning on December ??, 2011 through January ??, 2012.

**Future Development Plan:**

<b>Anticipated Actions</b>	<b>Anticipated Date</b>
1. Second posting	May/June 2012
2. Initial Ballot	June 2012
3. Recirculation Ballot	September 2012
4. NERC BOT adoption.	October 2012

## Standard BAL-002-2 – Contingency Reserve for Recovery from a Balancing Contingency Event

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### Definitions of Terms Used in Standard

*This section includes all newly defined or revised terms used in the proposed standard. Terms already defined in the Reliability Standards Glossary of Terms are not repeated here. New or revised definitions listed below become approved when the proposed standard is approved. When the standard becomes effective, these defined terms will be removed from the individual standard and added to the Glossary.*

**Balancing Contingency Event:** Any event described in subsections (A), (B), or (C) below.

A. Sudden Loss of Generation:

a. Due to

- i. unit tripping,
- ii. loss of generator interconnection facilities resulting in isolation of the generator from the Bulk Electric System or from the Responsible Entity's electric system, or
- iii. sudden unplanned outage of transmission facilities;

b. And, that causes an unexpected change to the Responsible Entity's ACE.

B. Sudden Loss of Non-Interruptible Import:

a. A sudden loss of a non-interruptible import, due to forced outage of transmission equipment, that causes an unexpected change to the Responsible Entity's ACE.

C. Unexpected Failure of Generation to Maintain or Increase:

a. Due to

- i. inability to start a unit the Responsible Entity planned to bring online at that time (for reasons other than lack of fuel), or
- ii. internal plant equipment problems that force the generator to be ramped down or taken offline;

b. And that, even if not an immediate cause of an unexpected change to the Responsible Entity's ACE, will, in the Responsible Entity's judgment, leave the Responsible Entity unable to maintain its ACE following the failure unless it deploys contingency reserve.

**Most Severe Single Contingency (MSSC):** The Balancing Contingency Event that would result in the greatest loss (measured in MW) of generation output used by the Balancing Authority, or the greatest loss of activated Direct Control Load Management used by the Balancing Authority, to meet firm system load and non-interruptible export obligation (excluding export obligation for which contingency reserve obligations are being met by the sink Balancing Authority).

**Reportable Contingency Event:** Balancing Contingency Events that are either a sudden loss of generation or a sudden loss of import greater than or equal to the lesser amount of 80 percent of the Balancing Authority's Most Severe Single Contingency or 500 MW provided that normal operating characteristics are not being considered or misrepresented as contingencies. Normal operating characteristics are excluded because they are not sudden and unanticipated losses of supply-side resources.

**Contingency Event Recovery Period:** A period not exceeding 15 minutes following the start of the Balancing Contingency Event.

**Contingency Reserve Restoration Period:** A period not exceeding 90 minutes following the end of the Contingency Event Recovery Period.

**A. Introduction**

- 1. Title: Contingency Reserve for Recovery From a Balancing Contingency Event**
- 2. Number: BAL-002-2**
- 3. Purpose:** To ensure the Balancing Authority or Reserve Sharing Group utilizes its Contingency Reserve to balance resources and demand and return the Balancing Authority's or Reserve Sharing Group's Area Control Error within defined limits following a Reportable Contingency Event.
- 4. Applicability:**
  - 4.1.** Balancing Authority
  - 4.2.** Reserve Sharing Group
- 5. (Proposed) Effective Date:**
  - 5.1.** In those jurisdictions where regulatory approval is required this standard shall become effective the first calendar day of the first calendar quarter twelve (12) months after applicable regulatory approval.
  - 5.2.** In those jurisdictions where no regulatory approval is required this standard shall become effective the first calendar day of the first calendar quarter twelve (12) months after Board of Trustees adoption.

**B. Requirements**

- R1.** Each Balancing Authority or Reserve Sharing Group experiencing a Reportable Contingency Event shall implement its Contingency Reserve plan to meet the lesser of:  
*[Violation Risk Factor: ] [Time Horizon: ]*
  - Returning its ACE to zero within the Contingency Event Recovery Period if its ACE just prior to the Balancing Contingency Event was positive or equal to zero. For negative initial ACE values just prior to the Balancing Contingency Event, the Balancing Authority shall return ACE to its pre-Balancing Contingency Event value, or
  - Demonstrating ACE recovery of at least equal to the Balancing Authority or Reserve Sharing Group's Most Severe Single Contingency (MSSC) within the Contingency Event Recovery Period.
- R2.** A Balancing Authority or Reserve Sharing Group shall combine all Balancing Contingency Events occurring within one minute or less to one event for the purpose of identifying a Reportable Contingency Event to ensure response for Balancing Contingency Events that have a reliability impact to interconnection frequency.  
*[Violation Risk Factor: ] [Time Horizon: ]*
- R3.** For Balancing Contingency Events occurring more than one minute after but less than 105 minutes after the start of the prior Reportable Contingency Event, each Balancing Authority or Reserve Sharing Group shall: *[Violation Risk Factor:] [Time Horizon: ]*
  - 3.1.** If the prior Reportable Contingency Event was less than its MSSC, deploy additional contingency reserve equal to the lesser amount of the sum of the initial

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Reportable Contingency Event and any additional Balancing Contingency Events or its contingency reserve at least equal to the Balancing Authority's or Reserve Sharing Groups MSSC, and

- 3.2. Determine the disturbance recovery of the initial Reportable Contingency Event by performing an estimation of the ACE recovery that would have occurred had the additional Balancing Contingency Events occurring after one minute had not occurred.
- R4. Each Balancing Authority or Reserve Sharing Group shall fully restore its Contingency Reserve within the Contingency Reserve Restoration Period. For multiple Balancing Contingency Events occurring in a 105 minute period, the end of the Contingency Reserve Restoration Period will be 105 minutes from the start of the final Balancing Contingency Event to ensure sufficient reserves are available to meet any additional contingency events. [*Violation Risk Factor:* ][*Time Horizon:* ]

### C. Measures

- M1. Each Balancing Authority or Reserve Sharing Group shall have and provide upon request evidence such as computer logs or operator logs to show compliance with Requirement R1.
- M2. Each Balancing Authority or Reserve Sharing Group shall have and provide upon request evidence such as computer logs or operator logs that it combined Contingency Events in accordance with Requirement R2.
- M3. Each Balancing Authority or Reserve Sharing Group shall have and provide upon request evidence such as computer logs or operator logs that it performed recovery in accordance with Requirement R3.
- M4. Each Balancing Authority or Reserve Sharing Group shall have and provide upon request evidence such as computer logs or operator logs that it restored its Contingency Reserve within the Contingency Reserve Restoration Period in accordance with Requirement R4.

### D. Compliance

#### 1. Compliance Monitoring Process

##### 1.1. Compliance Enforcement Authority

The Regional Entity is the Compliance Enforcement Authority except where the responsible entity works for the Regional Entity. Where the responsible entity works for the Regional Entity, the Regional Entity will establish an agreement with the ERO or another entity approved by the ERO and FERC (i.e. another Regional Entity), to be responsible for compliance enforcement.

##### 1.2. Data Retention

The Balancing Authority or Reserve sharing Group shall retain data or evidence to show compliance for the current year plus three calendar years unless directed

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by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a Balancing Authority or Reserve Sharing Group is found non-compliant, it shall keep information related to the non-compliance until found compliant or for the time period specified above, whichever is longer.

The Compliance Enforcement Authority shall keep the last audit records and all subsequent requested and submitted records.

### 1.3. Compliance Monitoring and Assessment Processes

Compliance Audits

Self-Certifications

Spot Checking

Compliance Violation Investigations

Self-Reporting

Complaints

Periodic Data Submittals

### 1.4. Additional Compliance Information

A Balancing Authority may elect to fulfill its Contingency Reserve obligations by participating as a member of a Reserve Sharing Group.

A Balancing Authority or Reserve Sharing Group may use Contingency Reserve for any Balancing Contingency Event.

A Balancing Authority or Reserve Sharing Group may optionally reduce the 80% threshold, upon written notification to the Regional Entity.

## 2. Violation Severity Levels

R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1				
R2				
R3				
R4				

## E. Regional Variances

None.

## F. Associated Documents

BAL-002-2 Contingency Reserve for Recovery from a Balancing Contingency Event  
Background Document

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### Version History

Version	Date	Action	Change Tracking
0	April 1, 2005	Effective Date	New
0	August 8, 2005	Removed “Proposed” from Effective Date	Errata
0	February 14, 2006	Revised graph on page 3, “10 min.” to “Recovery time.” Removed fourth bullet.	Errata
2		NERC BOT Adoption	Complete revision