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 NERC 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.
2. 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 revisions to the standard in accordance with Results-Based Criteria. This proposed draft standard will be posted for a 30-day formal comment period beginning on October ??, 2011 through November ??, 2011.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Second Posting	
2. Initial Ballot	
3. Recirculation Ballot	
4. NERC BOT Approval	**October, 2012**

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: A "Contingency Event" is any event described in subsections (a), (b), (c), or (d) below.

(a)	**Sudden Loss of Generation:**
• a sudden loss of generation	
	▪ due to o unit tripping, o 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 o sudden unplanned~~forced~~ outage of transmission facilities;
	▪ that causes an unexpected change to the Responsible Entity's ACE.

(b)	**Sudden Loss of Non-Interruptible Import:**
• 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:**
• an unexpected failure of generation to maintain or increase	
	▪ due to o inability to start a unit the Responsible Entity planned to bring online at that time (for reasons other than lack of fuel) ~~(drafting note this is added to pre-empt lack of wind for being declared as a Contingent Event)~~, or o internal plant equipment problems that force the generator to be ramped down or taken offline;
	▪ 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.

(d)	**Declaration of Energy Emergency Alert 2 or 3:**
	• a Responsible Entity's inability to meet firm load such that the Responsible Entity has requested that its Reliability Coordinator declare, and the Reliability Coordinator has declared (or confirmed that it promptly will declare) an Energy Emergency Alert 2 or Alert 3 (as described EOP-002-2).

Contingency Event Recovery Criterion: The Contingency Event Recovery Criterion is defined as a Balancing Authority shall return its ACE to zero if its ACE just prior to the Contingency Event was positive or equal to zero. For negative initial ACE values just prior to the Contingency Event, the Balancing Authority shall return ACE to its pre-Contingency Event value.

Reportable Contingency Event: Any Contingency Event greater than or equal to the lesser amount of 80 percent of the Balancing Authority's most severe single contingency or _____ MW.

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

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

Comment [r1]: (Measurement is only after a DCS event)

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

Responsible Entity: Responsible Entities shall mean an entity that is (i) a Balancing Authority, or (ii) a Contingency Reserve Sharing Group. A Responsible Entity that is a member of a Reserve Sharing Group is not subject to BAL-002-2 on an individual basis.

Contingency Reserve Sharing Group: At least two Balancing Authorities that have designated in writing they have formed a Contingency Reserve Sharing Group and have provided for compliance and reporting for purposes of this Standard.

A. Introduction

1. **Title:** **Contingency Reserve for recovery from a Contingency Event**
2. **Number:** BAL-002-2
3. **Purpose:** Implement Contingency Reserve Plan
4. **Applicability:**

4.1. Responsible Entity

4.1.1 Balancing Authority

4.1.2 Reserve Sharing Group

5. **Effective Date:** All requirements become effective the first day of the first calendar quarter following applicable regulatory approval. In those jurisdictions where no regulatory approval is required, the requirements become effective the first day of the first calendar quarter following Board of Trustee adoption.

B. Requirements

~~R1. Each Responsible Entity shall implement its Contingency Reserve Plan to recover from loss of generation or the loss of Direct Control Load Management.~~

~~M1. Each Responsible Entity shall have evidence that its Contingency Reserve Plan was implemented consistent with Requirement 1.~~

R1. Each BA shall specify whether it is meeting its implementation requirement as an individual BA or as a member of a Reserve Sharing Group.

Comment [r2]: Need to review this.

M1. Each BA shall have and provide upon request documentation consistent with Requirement R2.

R2. When specified to act on the behalf of the BA, the RSG shall implement its Contingency Reserve Plan to recover from the loss of the BA.

Comment [r3]: Consider an alternative approach.

M2.

R3~~2~~. Each Responsible Entity shall deploy Contingency Reserve consistent with its Contingency Reserve Plan sufficient to meet the Contingency Event Recovery Criterion within the Contingency Event Recovery ~~Restoration~~ Period for all Contingency Events equal to or less than its MSSC.

M3~~2~~. Each Responsible Entity shall have evidence that it deployed contingency reserve consistent with Requirement 2.

~~R3~~R4. For all Contingency Events greater than its MSSC, each Responsible Entity shall deploy Contingency Reserve consistent with its Contingency Reserve Plan sufficient to meet the Contingency Event Recovery Criterion or demonstrate ACE recovery of at least MSSC, whichever is less, within the Contingency Event Recovery Period.

Comment [r4]: Need to continue discussion of good practices vs requirement – Does this lower reliability from the present standard?

~~The Responsible Entity shall deploy as much contingency reserve as it has available in response to any Contingency Event exceeding its MSSC, provided however, that if (i) the Responsible Entity has more than enough contingency reserve available to~~

~~recover from the Contingency Event exceeding its MSSC, the Responsible Entity need deploy only enough contingency reserve to fully recover within the Contingency Event Recovery Period, and (ii) to the extent the Responsible Entity is unable to recover, within the Contingency Event Recovery Period, from a Reportable Contingency Event greater than its MSSC, the Responsible Entity will not be subject to monetary penalties or any other sanction for failure to comply with this Standard so long as the amount of contingency reserve the Responsible Entity deployed within the Contingency Event Recovery Period was at least equal to the Responsible Entity's MSSC.~~

M4~~3~~. Each Responsible Entity has evidence that it deployed contingency reserve consistent with Requirement 3.

Comment [r5]: Need to update.

Comment [r6]: From the most negative ACE to the most positive ACE during the 15 minute recovery period.

R5~~4~~. The Responsible Entity shall deploy its contingency reserve at least equal to the magnitude of its MSSC for multiple single Contingency Events occurring within one minute or less whose combined magnitude equal~~s~~ or exceed~~s~~ the Responsible Entity's MSSC.

M5~~4~~. Each Responsible Entity has evidence that it deployed contingency reserve consistent with Requirement 4.

R6~~5~~. During a Reportable Contingency Event if any additional Contingency Events occur one clock minute or more after the start of the Reportable Contingency Event and within the Contingency Event Recovery Period or the Contingency Reserve Recovery Period, the Responsible Entity shall (i) if the initial Reportable Contingency Event was less than its MSSC, deploy additional contingency reserve until its total deployed contingency reserve is at least equal to the Responsible Entity's MSSC, and (ii) determine the disturbance recovery of the initial Reportable Contingency Event by performing a reasonable estimation of the response that would have occurred had the additional Contingency Events occurring after one clock minute had not occurred.

M6~~5~~. Each Responsible Entity shall have evidence that it deployed contingency reserves consistent with Requirement 5.

R7~~6~~. A Responsible Entity shall fully restore its contingency reserve within the Contingency Reserve Restoration Period.

M7~~6~~. Each Responsible Entity shall have evidence that, following a Reportable Contingency Event, it restored its contingency reserve consistent with Requirement 6.

R8~~7~~. If a Reportable Contingency Event occurs after the end of the Contingency Event Recovery Period for an initial Contingency Event (whether or not Reportable) but before the end of the Contingency Reserve Restoration Period for the initial Contingency Event, (i) the Responsible Entity's obligation to deploy contingency reserve shall be as stated in R5, and (ii) to the extent the Reportable Contingency Event, combined with the initial Contingency Event, exceeds the Responsible

Entity's MSSC, the Reportable Contingency Event shall be reported but is not subject to monetary penalties or any other sanction for failure to comply with this Standard.

M~~8~~7. Each Responsible Entity shall have evidence that it reported and deployed contingency reserve for Reportable Contingency Events occurring during a Contingency Reserve Restoration Period consistent with Requirement 7.