

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.
8. The draft standard was posted for industry comment beginning on June 215, 2012 through July 3, 2012.

Proposed Action Plan and Description of Current Draft:

This is the second posting of the proposed new standard. This proposed draft standard will be posted for a 45-day formal comment period and initial ballot beginning on November ??, 2012 through January ??, 2012.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Second posting	December 2012/January 2013
2. Initial Ballot	January 2013
3. Recirculation Ballot	March 2013

4. NERC BOT adoption.	May 2013
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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.

Frequency Responsive Reserve: An amount of reserve automatically responsive to locally sensed frequency deviation ~~during the primary control time frame.~~

Frequency Response Sharing Group¹: A group whose members consist of two or more Balancing Authorities that collectively maintain, allocate, and supply operating resources required to jointly meet the sum of the Frequency Response Obligations of its members.

Regulation Reserve Sharing Group²: A group whose members consist of two or more Balancing Authorities that collectively maintain, allocate, and supply the regulating reserve required for all member Balancing Authorities to use in meeting applicable regulating standards.

¹ This term and definition is identical to the definition in BAL-003-1 which received industry approval during the successive ballot.

² This term and definition is identical to the definition in the draft 2 BAL-001-1 proposed standard posting.

A. Introduction

1. **Title:** Operating Reserve PolicyPlanning
2. **Number:** BAL-012-1
3. **Purpose:** To state and set forth policyplan for provision ofadequate Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve to maintain ~~Balancing Authority Load and resource balance to~~ ensure reliable operation of the Bulk Electric System.
4. **Applicability:**

4.1. Balancing Authority

4.1.1 A Balancing Authority that is a member of a Reserve Sharing Group is the responsible entity only in periods during which the Balancing Authority is not in active status under the applicable agreement or governing rules for the Reserve Sharing Group.

4.1.2 A Balancing Authority that is a member of a Regulation Reserve Sharing Group is the responsible entity only in periods during which the Balancing Authority is not in active status under the applicable agreement or governing rules for the Regulation Reserve Sharing Group.

4.1.14.1.3 A Balancing Authority that is a member of a Frequency Response Sharing Group is the responsible entity only in periods during which the Balancing Authority is not in active status under the applicable agreement or governing rules for the Frequency Response Sharing Group.

4.2. Reserve Sharing Group

4.3. Regulation Reserve Sharing Group

4.2.4.4. Frequency Response Sharing Group

5. **(Proposed) Effective Date:**

5.1. Requirements R1, R2, R3, R4, R7 and R8 become effective the fFirst day of the first calendar quarter that is 12 months beyond the date that this standard is approved by applicable regulatory authorities, or
~~, or i~~n those jurisdictions where regulatory approval is not required, Requirements R1, R2, R3, R4, R7 and R8the standard becomes effective the first day of the first calendar quarter that is 12 months beyond the date this standard is approved by the NERC Board of Trustees', or
~~a~~s otherwise made pursuant to the laws applicable to such ERO governmental authorities.

5.2. Requirements R5 and R6 become effective the latter of the first day of the first calendar quarter that is 12 months beyond the date that this standard is

approved by applicable regulatory authorities or the date that BAL-003-1 becomes effective, or

In those jurisdictions where regulatory approval is not required, Requirements R5 and R6 become effective the latter of the first day of the first calendar quarter that is 12 months beyond the date this standard is approved by the NERC Board of Trustees' or the date that BAL-003-1 becomes effective, or

As otherwise made pursuant to the laws applicable to such ERO governmental authorities.

B. Requirements

R1. Each responsible entity~~Balancing Authority~~ shall have a documented, once each calendar year, with no more than 15 calendar months between intervals, document its annual plan for Regulating Reserve policy that includes at least the following used to manage the Balancing Authority's Area Control Error (ACE) addressing each of the following: [*Violation Risk Factor: Lower*] [*Time Horizon: Operations Planning*]

1.1. The method for determination of the responsible entity's~~Balancing Authority's~~ regulating needs~~margin~~.

1.2. The types of resources and the portion of their capacity that can be made available for regulation~~included in the regulating margin~~.

Consideration of ~~The control of supply and demand resources (such as generators, controllable Loads, and energy storage devices).~~

1.3. ~~The incorporation of energy exports and imports by entities within the Balancing Authority Area, and with other~~ responsible entities~~Balancing Authorities~~, including an assessment of the ability of the resources within the responsible entity~~Balancing Authority's resources~~ to meet the net ramping requirements associated with these transactions.

A prohibition against counting toward the responsible entity's regulating needs any capacity which is~~The characteristics (such as capabilities, constraints, and volatilities) of the resources operating inside the Balancing Authority Area.~~

~~The characteristics (such as capabilities, constraints, and volatilities) of the Load operating inside the Balancing Authority Area.~~

1.4. ~~The exclusion of any shared portions of regulating resources already~~ included in another responsible entity's~~Balancing Authority's~~ Regulating, Contingency, or Frequency Responsive Reserve policy~~plans~~.

1.5. A review of the responsible entity's Regulating Reserve for the operating time horizon.

1.6. The ability of the responsible entity's System Operator(s) to determine, on at least an hourly basis, that the responsible entity has sufficient Regulating Reserve.

1.4.1.7. How depleted Regulating Reserves will be restored in a timely manner.

R2. Each responsible entity shall implement, in a manner that identifies, assesses, and corrects deficiencies, a Regulating Reserve policy identified in Requirement R1.

[Violation Risk Factor: Lower][Time Horizon: Operations Planning]

R2-R3. Each responsible entity ~~Balancing Authority and Reserve Sharing Group shall~~ shall have a documented, ~~once each calendar year, with no more than 15 calendar months between intervals, document its annual plan for~~ Contingency Reserve policy that includes at least ~~used to recover from Balancing Contingency Events addressing each of~~ the following: *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*

2.1.3.1. The method for determination of the responsible entity's ~~Balancing Authority's or Reserve Sharing Group's~~ Contingency Reserve needs ~~margin~~.

2.2.3.2. The types of resources and the portion of their capacity capable of reducing the Balancing Authority's Area Control Error in response to each of the following:

2.2.1.3.2.1. A Balancing Contingency Event.

2.2.2.3.2.2. Events associated with Energy Emergency Alert 2. And

2.2.3.3.2.3. Events associated with Energy Emergency Alert 3.

Consideration of ~~tThe control of supply and demand resources such as generators, controllable Loads, and energy storage devices.~~

2.3.3.3. The incorporation of energy import and export schedules by entities ~~within the Balancing Authority Area and with other~~ responsible entities ~~Balancing Authorities~~.

A prohibition against counting toward the responsible entity's Contingency Reserves any capacity which is ~~The characteristics (such as capabilities, constraints, and volatilities) of the resources operating inside the Balancing Authority Area.~~

~~The characteristics (such as capabilities, constraints, and volatilities) of the Load operating inside the Balancing Authority Area.~~

2.4.3.4. The exclusion of any portion of shared contingency resources already included in another responsible entity's ~~Balancing Authority's~~ Regulating, Contingency, or Frequency Responsive Reserve policy ~~plans~~.

3.5. The planned amount of the Balancing Authority's or Reserve Sharing Group's ~~resources that can be reduced in~~ response to a Large Loss of Load Event by the responsible entity.

3.6. A review of the responsible entity's Contingency Reserve for the operating time horizon.

3.7. The ability of the responsible entity's System Operator(s) to determine, on at least an hourly basis, that the responsible entity has sufficient Contingency Reserve.

2.5.3.8. How depleted Contingency Reserves will be restored in a timely manner.

R4. Each responsible entity shall implement, in a manner that identifies, assesses, and corrects deficiencies, a Contingency Reserve policy identified in Requirement R3. [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]

R3-R5. Each responsible entity~~Balancing Authority and Frequency Response Sharing Group~~ shall have a documented, once each calendar year, with no more than 15 calendar months between intervals, document its annual plan for Frequency Responsive Reserve policy that includes to arrest frequency change during imbalance events addressing each of at least the following: [Violation Risk Factor: Lower] [Time Horizon: Operations Planning]

3.1.5.1. The Frequency Response Obligation (FRO) assigned to the responsible entity~~Balancing Authority or Frequency Response Sharing Group~~.

5.2. The types of resources (such as generation, load, storage devices, etc.) and their expected Frequency Response (such as MW/0.1 Hz and the range of frequency where response is expected).

3.2.~~A prohibition against counting toward the responsible entity's~~ The minimum amount and capability of resources required to meet the Balancing Authority's or Frequency Response Sharing Group's FRO.

3.3. ~~The Frequency Responsive capabilities of generation operating inside the Balancing Authority Area or Frequency Response Sharing Group.~~

3.4. ~~The Frequency Responsive capabilities of Load operating inside the Balancing Authority Area or Frequency Response Sharing Group.~~

3.5. ~~The Frequency Responsive capabilities of energy storage devices operating inside the Balancing Authority Area or Frequency Response Sharing Group.~~

3.6.5.3. ~~The exclusion of any portion of shared~~ Frequency Responsive Reserves resources any capacity which is already included in another responsible entity's ~~Balancing Authority's~~ Regulating, Contingency, or Frequency Responsive Reserve policy~~plans~~.

5.4. The amount of Frequency Responsive Reserve provided through contractual agreements.

5.5. A review of the responsible entity's Frequency Responsive Reserve for the operating time horizon.

5.6. The ability of the responsible entity's System Operator(s) to determine, on at least an hourly basis, that the responsible entity has sufficient Frequency Responsive Reserve.

3.7.5.7. How depleted Frequency Responsive Reserves will be restored in a timely manner.

R6. Each responsible entity shall implement, in a manner that identifies, assesses, and corrects deficiencies, a Frequency Responsive Reserve policy identified in Requirement R5. *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*

~~R4-R7.~~ Each Reserve Sharing Group, Regulation Reserve Sharing Group or Frequency Response Sharing Group shall have a policy signed agreement among the participating Balancing Authorities addressing each of the following: *[Violation Risk Factor: Lower] [Time Horizon: Operations Planning]*

4.1.7.1. The minimum reserve requirement for the group.

4.2.7.2. The ~~a~~Allocation of reserves among members.

4.3.7.3. The procedure for activating reserves.

7.4. Reporting and record keeping processes.

R8. Each responsible entity shall have a policy that requires the total capability of resources designated to provide Regulating Reserve, Contingency Reserve and Frequency Responsive Reserve to be at least equal to the amount required to meet all reserve requirements concurrently prior to deploying any such resources. *[Violation Risk Factor: Lower][Time Horizon: Operations Planning]*

~~R5.~~ Each Balancing Authority shall perform at least a weekly review of its operational plan(s) for the next seven days for Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve to ensure sufficient reserves to support reliable operation of the Bulk Electric System. *[Violation Risk Factor:][Time Horizon:]*

~~R6.~~ Each Balancing Authority shall assess, on at least an hourly basis, that it has sufficient Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve to meet its reserve plan(s) to ensure reliable operation of the Bulk Electric System. *[Violation Risk Factor:][Time Horizon:]*

~~R7.~~ Each Balancing Authority shall evaluate that its aggregate amount of planned Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve margin(s) above and below its forecasted demand is within the operating limits of its resources to ensure reliable operation of the Bulk Electric System. *[Violation Risk Factor:][Time Horizon:]*

C. Measures

M1. The responsible entity~~Each Balancing Authority~~ shall have a dated Regulating Reserve policy plan, either in hardcopy or electronic format, in accordance with Requirement R1.

M1-M2. The responsible entity shall have evidence (such as a periodic dated log showing when the responsible entity reviewed their policy, documented

deficiencies that were found and necessary corrections where made to the policy) to demonstrate implementation of the policy in accordance with Requirement R2.

~~M3.~~ The responsible entity~~Each Balancing Authority or Reserve Sharing Group~~ shall have a dated Contingency Reserve policy plan, either in hardcopy or electronic format, in accordance with Requirement R3~~2~~.

~~M2.~~ The responsible entity shall have evidence (such as a periodic dated log showing when the responsible entity reviewed their policy, documented deficiencies that were found and necessary corrections where made to the policy) to demonstrate implementation of the policy in accordance with Requirement R4.

~~M4.~~

~~M5.~~ The responsible entity~~Each Balancing Authority or Frequency Response Sharing Group~~ shall have a dated Frequency Responsive Reserve policy plan, either in hardcopy or electronic format, in accordance with Requirement R5~~3~~.

~~M3.~~~~M6.~~ The responsible entity shall have evidence (such as a periodic dated log showing when the responsible entity reviewed their policy, documented deficiencies that were found and necessary corrections where made to the policy) to demonstrate implementation of the policy in accordance with Requirement R6.

~~M7.~~ Each Reserve Sharing Group, Regulation Reserve Sharing Group or Frequency Response Sharing Group shall have a dated policy, either in hardcopy or electronic format, in accordance with Requirement R7.

~~M4.~~~~M8.~~ Each responsible entity~~Reserve Sharing Group or Frequency Response Sharing Group~~ shall have a dated policy, either in hardcopy or electronic format, signed agreement in accordance with Requirement R8~~4~~.

~~M5.~~ Each Balancing Authority shall have evidence, such as a dated operational plan, that it reviewed and updated, as needed its Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve plan(s) in compliance with Requirement R5.

~~M6.~~ Each Balancing Authority shall have evidence; such as dated computer printouts, dated operator logs, or dated results of the assessments with assumptions, either in hardcopy or electronic format, that it performed an hourly assessment of its Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve in compliance with Requirement R6.

~~M7.~~ Each Balancing Authority shall have evidence; such as a dated operational plan with specified elements, either in hardcopy or electronic format, that it planned for Regulating Reserve, Contingency Reserve, and Frequency Responsive Reserve in compliance with Requirement R7.

D. Compliance

1. Compliance Monitoring Process

1.1. Compliance Enforcement Authority

The Regional Entity shall serve as the Compliance Enforcement Authority unless the applicable entity is owned, operated, or controlled by the Regional Entity. In such cases the ERO or a Regional entity approved by FERC or other applicable governmental authority shall serve as the CEA.~~Regional Entity~~

1.2. Data Retention

The following evidence retention periods identify the period of time an entity is required to retain specific evidence to demonstrate compliance. For instances where the evidence retention period specified below is shorter than the time since the last audit, the Compliance Enforcement Authority may ask an entity to provide other evidence to show that it was compliant for the full-time period since the last audit.

The ~~responsible entity~~Balancing Authority, Reserve sharing Group, or Frequency Response Sharing Group shall retain data or evidence to show compliance with Requirements R1 through R~~8~~7, and Measures M1 through M~~8~~7, for the current year, plus three previous calendar years, unless directed by its Compliance Enforcement Authority to retain specific evidence for a longer period of time as part of an investigation.

If a ~~responsible entity~~Balancing Authority, Reserve Sharing Group, or Frequency Response Sharing Group is found noncompliant, it shall keep information related to the noncompliance 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 Audit~~s~~

Self-Certification~~s~~

Spot Checking

Compliance Investigation~~s~~

Self-Reporting

Complaint~~s~~

1.4. Additional Compliance Information

The policies developed in ~~None~~ Requirements R1, R3, R5, R7 and R8 may be incorporated into one or more policy documents.

2. Violation Severity Levels

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R #	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	<u>The Responsible Entity has a Regulating Reserve policy but failed to address one of the items listed in Requirement R1.</u>	<u>The Responsible Entity has a Regulating Reserve policy but failed to address two of the items listed in Requirement R1.</u>	<u>The Responsible Entity has a Regulating Reserve policy but failed to address three of the items listed in Requirement R1.</u>	<u>The Responsible Entity has a Regulating Reserve policy but failed to address four or more of the items listed in Requirement R1</u> <u>Or</u> <u>The responsible entity does not have a Regulating Reserve policy.</u>
R2	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Responsible Entity identified a deficiency in its Regulating Reserve policy but failed to correct the deficiency.</u>
R3	<u>The Responsible Entity has a Contingency Reserve policy but failed to address one of the items listed in Requirement R3.</u>	<u>The Responsible Entity has a Contingency Reserve policy but failed to address two of the items listed in Requirement R3.</u>	<u>The Responsible Entity has a Contingency Reserve policy but failed to address three of the items listed in Requirement R3.</u>	<u>The Responsible Entity has a Contingency Reserve policy but failed to address four or more of the items listed in Requirement R3</u> <u>Or</u> <u>The responsible entity does not have a Regulating Reserve policy.</u>
R4	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Responsible Entity identified a deficiency in its</u>

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				<u>Contingency Reserve policy but failed to correct the deficiency.</u>
R5	<u>The Responsible Entity has a Frequency Responsive Reserve policy but failed to address one of the items listed in Requirement R5.</u>	<u>The Responsible Entity has a Frequency Responsive Reserve policy but failed to address two of the items listed in Requirement R5.</u>	<u>The Responsible Entity has a Frequency Responsive Reserve policy but failed to address three of the items listed in Requirement R5.</u>	<u>The Responsible Entity has a Frequency Responsive Reserve policy but failed to address four or more of the items listed in Requirement R5</u> <u>Or</u> <u>The responsible entity does not have a Regulating Reserve policy.</u>
R6	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Responsible Entity identified a deficiency in its Frequency Responsive Reserve policy but failed to correct the deficiency.</u>
R7	<u>The Reserve Sharing Group, Regulation Reserve Sharing Group or Frequency Response Sharing Group had an operating policy but failed to address one of the items listed in Requirement R7.</u>	<u>The Reserve Sharing Group, Regulation Reserve Sharing Group or Frequency Response Sharing Group had an operating policy but failed to address two of the items listed in Requirement R7.</u>	<u>The Reserve Sharing Group, Regulation Reserve Sharing Group or Frequency Response Sharing Group had an operating policy but failed to address three of the items listed in Requirement R7.</u>	<u>The Reserve Sharing Group, Regulation Reserve Sharing Group or Frequency Response Sharing Group had an operating policy but failed to address any of the items listed in Requirement R7</u>

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				<u>Or</u> <u>The responsible entity does not have a Regulating Reserve policy.</u>
R8	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>The Responsible Entity failed to develop a policy in accordance with Requirement R8.</u>

E. Regional Variances

None.

F. Associated Documents

BAL-012-1 Operating Reserve PolicyPlanning Background Document

Version History

Version	Date	Action	Change Tracking
1		NERC BOT Adoption	New Standard