

WECC Standard BAL-002-WECC-1 - Contingency Reserves

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:

Completed Actions	Completion Date
1. Post Draft Standard for initial industry comments	September 14, 2007
2. Drafting Team to review and respond to initial industry comments	November 20, 2007
3. Post second Draft Standard for industry comments	November 20, 2007
4. Drafting Team to review and respond to industry comments	January 25, 2008
5. Post Draft Standard for Operating Committee approval	January 25, 2008
6. Operating Committee ballots proposed standard	March 6, 2008
7. Post Draft Standard for WECC Board approval	March 12, 2008

Description of Current Draft:

The purpose of this standard is to create a permanent replacement standard for BAL-STD-002-0. BAL-002-WECC-1 is designed to implement the directives of FERC and recommendations of NERC when BAL-STD-002-0 was approved as a NERC reliability standard. The drafting team implemented in the standard additional refinements to address concerns as explained in the document titled, "WECC Standard BAL-002-WECC-1 Contingency Reserves." To assist in understanding the refinements made to the standard, the drafting team has developed a document that compares BAL-002-WECC-1, the permanent replacement standard, with the existing BAL-STD-002-0 (see BAL-002-WECC-1 Comparison).

This posting of the BAL-002-WECC-1 standard is for WECC Board of Director ballot. The Operating Committee recommends that the WECC Board of Directors approve the BAL-002-WECC-1 Standard as a permanent replacement standard for BAL-STD-002-0 and that the Board of Directors submit the standard to the NERC and FERC for approval.

Future Development Plan:

Anticipated Actions	Anticipated Date
1. Post Draft Standard for NERC comment period	March 28, 2008
2. WECC Board ballots proposed standard	April 16-18, 2008
3. Drafting Team to review and respond to industry comments	May 2008
4. NERC Board approval request	May 2008
5. Request FERC approval	June 2008

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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 definitions will be removed from the standard and added to the Glossary.

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A. Introduction

1. **Title:** Contingency Reserves
2. **Number:** BAL-002-WECC-1
3. **Purpose:** Contingency Reserve is required for the reliable operation of the interconnected power system. Adequate generating capacity must be available at all times to maintain scheduled frequency, and avoid loss of firm load following transmission or generation contingencies. This generating capacity is necessary to replace generating capacity and energy lost due to forced outages of generation or transmission equipment.

4. **Applicability**
 - 4.1 Balancing Authority

 - 4.2 Reserve Sharing Group

5. **Effective Date:** On the first day of the next quarter, after receipt of applicable regulatory approval.

B. Requirements

- R1. Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain as a minimum Contingency Reserve that is the sum of the following: [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]
 - R1.1. The greater of the following:
 - R1.1.1. An amount of reserve equal to the loss of the most severe single contingency; or

 - R1.1.2. An amount of reserve equal to the sum of three percent of the load (generation minus station service minus Net Actual Interchange) and three percent of net generation (generation minus station service).

 - R1.2. If the Source Balancing Authority designates an Interchange Transaction(s) as part of its Non-Spinning Contingency Reserve, the Sink Balancing Authority shall carry an amount of additional Non-Spinning Contingency Reserve equal to the Interchange Transaction(s). This type of transaction cannot be designated as Spinning Reserves by the source BA. If the Source Balancing Authority does not designate the Interchange Transaction as part of its Contingency Reserve, the Sink Balancing Authority is not required to carry any additional Contingency Reserves under this Requirement.

 - R1.3. If the Sink Balancing Authority is designating an Interchange Transaction(s) as part of its Contingency Reserve either Spinning

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or Non-Spinning, the Source Balancing Authority shall increase its Contingency Reserves equal in amount and type, to the capacity transaction(s) where the Sink Balancing Authority is designating the transaction(s) as a resource to meet its Contingency Reserve requirements. These types of transactions could be designated as either spinning or non-spinning reserves. If designated as Spinning Reserves, all of the requirements of section R2.1 & R2.2 must be met.

- R2.** Each Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall maintain at least half of the Contingency Reserve in R1.1 as Spinning Reserve. Any Spinning Reserve specified in R1 shall meet the following requirements. [*Violation Risk Factor: High*] [*Time Horizon: Real-time Operations*]
- R2.1.** Immediately and automatically responds proportionally to frequency deviations, e.g. through the action of a governor or other control systems.
- R2.2.** Capable of fully responding within ten minutes.
- R3.** Each Reserve Sharing Group or Balancing Authority shall use the following acceptable types of reserve which must be fully deployable within 10 minutes of notification to meet R1: [*Violation Risk Factor: Medium*] [*Time Horizon: Real-time Operations*]
- R3.1.** Spinning Reserve
- R3.2.** Interruptible Load;
- R3.3.** Interchange Transactions designated by the source Balancing Authority as non-spinning contingency reserve;
- R3.4.** Reserve held by other entities by agreement that is deliverable on Firm Transmission Service;
- R3.5.** An amount of off-line generation which can be synchronized and generating; or
- R3.6.** Load, other than Interruptible Load, once the Reliability Coordinator has declared a capacity or energy emergency.

C. Measures

- M1.** The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it maintained 100% of required Contingency Reserve levels based upon data integrated over each clock hour except within the first 105 minutes (15 minute Disturbance Recovery Period, plus

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90 minute Contingency Reserve Restoration Period) following an event requiring the activation of Contingency Reserves. For each hour Reserve Sharing Group or Balancing Authority shall have and provide upon request their Contingency Reserve Requirement in MW, how the requirement was calculated, and amount of Contingency Reserve available in MW. E-tags and/or contracts shall be provided to document any transactions under R1.2 and R1.3.

- M2.** The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it maintained at least 100% of minimum Spinning Contingency Reserve required based upon data averaged over each clock hour except within the first 105 minutes following an event requiring the activation of Contingency Reserves. For each hour, Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group shall have and provide upon request the Spinning Reserve Requirement in MW and amount of Spinning Reserve available in MW that is automatically responsive to frequency and can be fully deployed in 10 minutes.
- M3.** The Reserve Sharing Group or Balancing Authority that is not a member of a Reserve Sharing Group has documentation that it used the acceptable types of reserve for each hour to meet R3.
- M3.1** Any Reserve Sharing Group or Balancing Authority utilizing Load other than Interruptible Load shall submit documentation demonstrating that the Reliability Coordinator declared a Capacity and/or Energy Emergency prior to utilizing Load for Contingency Reserves.

D. Compliance

1. Compliance Monitoring Process

1.1 Compliance Monitoring Responsibility

Compliance Enforcement Authority

1.2 Compliance Monitoring Period

The Compliance Enforcement Authority may use one or more of the following methods to assess compliance:

- Reports conducted quarterly
- Spot check audits conducted anytime with 30 days notice given to prepare
- Periodic audit as scheduled by the Compliance Enforcement Authority
- Investigations
- Other methods as provided for in the Compliance Monitoring Enforcement Program

Reserve Sharing Groups and Balancing Authorities shall submit to their Compliance Enforcement Authority a Contingency Reserve verification report on or before the tenth business day following the end of each calendar quarter.

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1.2.1 Compliance Monitoring Period: One Clock Hour.

1.2.2 The Performance-reset Period is calendar quarter.

1.3 Data Retention

Reserve Sharing Groups and Balancing Authorities shall keep evidence for Measure M.1 through M3 for three years plus current, or since the last audit, whichever is longer.

1.4. Additional Compliance Information

1.4.1. This Standard shall apply to a Reserve Sharing Group that has registered with the WECC as provided in Section 1.4.2, and each Balancing Authority identified in the registration shall be responsible for compliance with this Standard through its participation in the Reserve Sharing Group and not on an individual basis.

1.4.2. A Reserve Sharing Group may register as the Responsible Entity for purposes of compliance with this Standard by providing written notice to the WECC (a) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, (b) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and (c) identifying the person or organization that will serve as agent on behalf of the Reserve Sharing Group for purposes of communications and data submissions related to or required by this Standard.

1.4.3. If an agent properly designated in accordance with Section 1.4.2 identifies individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, together with the percentage of responsibility attributable to each identified Balancing Authority, then, except as may otherwise be finally determined through a duly conducted review or appeal of the initial finding of noncompliance, (a) any penalties assessed for noncompliance by the Reserve Sharing Group shall be allocated to the individual Balancing Authorities identified in the applicable data submission in proportion to their respective percentages of responsibility as specified in the data submission, (b) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection (a) of this Section 1.4.3, and (c) neither the Reserve Sharing Group nor any member of the Reserve Sharing Group shall be responsible for any portion of a penalty assessed against another member of the Reserve Sharing Group in accordance with subsection (a) of this Section 1.4.3 (even if the member of Reserve Sharing Group against which the penalty is assessed is not subject to or otherwise fails to pay its allocated share of the penalty).

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- 1.4.4.** If an agent properly designated in accordance with Section 1.4.2 fails to identify individual Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission or fails to specify percentages of responsibility attributable to each identified Balancing Authority, any penalties for noncompliance shall be assessed against the agent on behalf of the Reserve Sharing Group, and it shall be the responsibility of the members of the Reserve Sharing Group to allocate responsibility for such noncompliance.
- 1.4.5.** Any Balancing Authority that is a member of a Reserve Sharing Group that has failed to register as provided in Section 1.4.2 shall be subject to this Standard on an individual basis.

2. Violation Severity Levels for Requirement R1

- 2.1. Lower:** There shall be a Lower Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve.
- 2.2. Moderate:** There shall be a Moderate Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve.
- 2.3. High:** There shall be a High Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve.
- 2.4. Severe:** There shall be a Severe Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Contingency Reserve is less than 70% of the required Contingency Reserve.

3. Violation Severity Level for Requirement R2

- 3.1 Lower:** There shall be a Lower Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Spinning Reserve is less than 100% but greater than or equal to 90% of the required Spinning Reserve.
- 3.2. Moderate:** There shall be a Moderate Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Spinning Reserve is less than 90% but greater than or equal to 80% of the required Spinning Reserve.
- 3.3. High:** There shall be a High Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Spinning Reserve is less than 80% but greater than or equal to 70% of the required Spinning Reserve.

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3.4. Severe: There shall be a Severe Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Spinning Reserve is less than 70% of the required Spinning Reserve.

4. Violation Severity Level for Requirement R3

4.1 Lower: Not Applicable

4.2 Moderate: Not Applicable

4.3 High: There shall be a High Level of non-compliance if there is one hour during a calendar month in which the Balancing Authority or Reserve Sharing Group used unacceptable resources for Contingency Reserves.

4.4 Severe: Not Applicable

Version History – Shows Approval History and Summary of Changes in the Action Field

Version	Date	Action	Change Tracking
1	January 1, 2008	Permanent Replacement Standard for BAL-STD-002-0	
1	October 21, 2010	Remanded	