UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

NORTH AMERICAN ELECTRIC	**)**	**Docket Nos. RD13-_____**
RELIABILITY CORPORATION	**)**	**RM09-15-____**

JOINT PETITION OF THE NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION AND WESTERN ELECTRICITY COORDINATING COUNCIL FOR APPROVAL OF WECC REGIONAL RELIABILITY STANDARD BAL-002-WECC-2 — CONTINGENCY RESERVE

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April 12, 2013

TABLE OF CONTENTS

EXHIBITS

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The North American Electric Reliability Corporation ("NERC")[1] hereby requests that the Federal Energy Regulatory Commission ("FERC" or the "Commission") approve, in accordance with Section 215(d)(1) of the Federal Power Act ("FPA")[2] and Section 39.5 of the Commission's regulations, 18 C.F.R. § 39.5, proposed regional Reliability Standard BAL-002-WECC-2 included in **Exhibit B**. The Western Electricity Coordinating Council ("WECC") supports the filing of this petition.[3] NERC is hereby requesting approval of the proposed regional Reliability Standard, implementation plan, Violation Risk Factors ("VRFs") and Violation Severity Levels ("VSLs") and revision of the Glossary of Terms Used in NERC Reliability Standards[4] to remove the following WECC regional terms: Non-Spinning Reserve and Spinning Reserve.

NERC proposes an effective date of the first day of the third quarter following applicable regulatory approval. Upon Commission approval, this standard will only be

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[1] NERC has been certified by the Commission as the Electric Reliability Organization ("ERO") authorized by Section 215 of the Federal Power Act. The Commission certified NERC as the ERO in its order issued July 20, 2006 in Docket No. RR06-1-000. 116 FERC ¶ 61,062 (2006) ("ERO Certification Order).

[2] 16 U.S.C. 824o.

[3] As the Regional Entity who developed proposed regional Reliability Standard BAL-002-WECC-2, WECC joins and supports NERC's petition, thereby making WECC a party in this proceeding.

[4] Available here: http://www.nerc.com/files/Glossary_of_Terms.pdf.

effective within the WECC footprint and the existing BAL-STD-002-0 WECC regional Reliability Standard will be retired. The proposed regional Reliability Standard will be in effect only for applicable registered entities within the WECC Region.

I. EXECUTIVE SUMMARY

The Resource and Demand Balancing ("BAL") group of Reliability Standards ensure that resources and demand are balanced to maintain Interconnection frequency within limits. The purpose of the BAL-002 Disturbance Control Performance Reliability Standard is to ensure the Balancing Authority is able to utilize its Contingency Reserve[5] to balance resources and demand and return Interconnection frequency within defined limits following a Reportable Disturbance. The purpose of proposed Reliability Standard BAL-002-WECC-2 — Contingency Reserve is to provide a regional Reliability Standard that specifies the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions. The modifications submitted to the proposed regional Reliability Standard BAL-002-WECC-2 were developed in response to Commission Order No. 740, which remanded the previously proposed regional Reliability Standard, BAL-002-WECC-1.[6]

As explained herein, proposed regional Reliability Standard BAL-002-WECC-2 is more stringent than the continent-wide Reliability Standard, BAL-002-1a. NERC Reliability Standard BAL-002-1a provides that a Balancing Authority, Reserve Sharing Group, or Regional Reliability Organization responding to a disturbance must fully

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[5] The term "Contingency Reserve" is defined in the NERC Glossary of Terms Used in Reliability Standards as "The provision of capacity deployed by the Balancing Authority to meet the Disturbance Control Standard (DCS) and other NERC and Regional Reliability Organization contingency requirements."

[6] *Version One Regional Reliability Standard for Resource and Demand Balancing*, Order No. 740, 133 FERC ¶ 61,063 (2010).

restore its Contingency Reserves within 90 minutes[7] following the Disturbance Recovery Period, which is set at 15 minutes.[8]

Proposed regional Reliability Standard BAL-002-WECC-2 provides that a Balancing Authority or Reserve Sharing Group responding to a disturbance must fully restore its Contingency Reserves within *60 minutes*.[9] Further, the calculation of minimum Contingency Reserves in Requirement R1 of proposed regional Reliability Standard BAL-002-WECC-2 is more stringent than the national requirement.[10]

As the Commission has noted, in the Western Interconnection there are a significant number of transmission paths that are voltage or frequency stability-limited, in contrast to other regions of the Bulk-Power System where transmission paths are more often thermally-limited.[11] Disturbances that result in a stability-limited transmission path overload, generally must be responded to in a shorter time frame than a disturbance that results in a thermally-limited transmission path overload. This physical difference is one of the reasons for the need for certain provisions of regional Reliability Standards in the Western Interconnection, including proposed regional Reliability Standard BAL-002-WECC-2.

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[7] BAL-002-1a, Requirement R6 states:

R6. A Balancing Authority or Reserve Sharing Group shall fully restore its Contingency Reserves within the Contingency Reserve Restoration Period for its Interconnection.

R6.1. The Contingency Reserve Restoration Period begins at the end of the Disturbance Recovery Period.

R6.2. The default Contingency Reserve Restoration Period is 90 minutes.

[8] BAL-002-1a, Requirement R4.2 provides: "**R4.2.** The default Disturbance Recovery Period is 15 minutes after the start of a Reportable Disturbance."

[9] In approving WECC-BAL-STD-002-0, the Commission found that WECC's requirement to restore contingency reserves within 60 minutes was more stringent than the 90 minute restoration period set forth in NERC's BAL-002-0. *North American Electric Reliability Corp.*, 119 FERC ¶ 61,260 at P 53 (2007).

[10] The Commission acknowledged this in Order No. 740 at P 39. ("We believe that WECC's proposed calculation of minimum contingency reserves is more stringent than the national requirement…").

[11] Order No. 740 at P 23.

A. Procedural History

1. BAL-002

BAL-002 is the continent-wide Reliability Standard and was initially submitted for Commission approval in Docket No. RM06-16-000 and accepted in Order No. 693.[12] BAL-002-0 was revised (and therefore renumbered as BAL-002-1) to address two Commission directives from paragraph 321 of Order No. 693. BAL-002-1 was submitted in Docket No. RD10-15-000 and was accepted by the Commission via letter order on January 10, 2011.[13] An interpretation of BAL-002 was submitted for Commission approval on February 12, 2013 in Docket No. RM13-6-000 and is currently pending.

2. BAL-002-WECC

In June 2007, the Commission approved regional Reliability Standard WECC BAL-STD-002-0 (the predecessor of BAL-002-WECC-1) finding that the standard was more stringent than the corresponding NERC Reliability Standard, BAL-002-0.[14] Specifically, the Commission found that WECC's requirement to restore contingency reserve within 60 minutes was more stringent than the 90-minute restoration period as set forth in NERC's BAL-002-0.[15]

The Commission directed WECC to develop certain minor modifications to WECC BAL-STD-002-0, as identified by NERC in its filing letter for the current

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[12] *Mandatory Reliability Standards for the Bulk-Power System*, Order No. 693, FERC Stats. & Regs. ¶ 31,242, *order on reh'g*, Order No. 693-A, 120 FERC ¶ 61,053 (2007).

[13] 134 FERC ¶ 61,015 (2011).

[14] *North American Electric Reliability Corp*., 119 FERC ¶ 61,260 at P 53 (2007).

[15] *Id.* ("The Commission finds that the proposed regional Reliability Standard is more stringent than the corresponding NERC Reliability Standard, BAL-002-0, because WECC requires a more stringent minimum reserve requirement than the nation-wide requirement. Further, WECC's requirement to restore contingency reserves within 60 minutes is more stringent than the 90 minute restoration period set forth in NERC's BAL-002-0.")(internal citation omitted).

standard.[16] For example, the Commission determined that: (1) regional definitions should conform to definitions set forth in the NERC Glossary of Terms Used in Reliability Standards ("NERC Glossary") unless a specific deviation has been justified; and (2) documents that are referenced in the Reliability Standard should be attached to the Reliability Standard. The Commission also found that it is important that regional Reliability Standards and NERC Reliability Standards achieve a reasonable level of consistency in their structure so that there is a common understanding of the elements. Finally, the Commission directed WECC to address stakeholder concerns regarding ambiguities in the terms "load responsibility" and "firm transaction."[17]

On March 25, 2009, NERC submitted a petition to the Commission seeking approval of BAL-002-WECC-1 and requesting the concurrent retirement of WECC BAL-STD-002-0. On October 21, 2010, the Commission remanded the proposed BAL-002-WECC-1 standard based on concerns that WECC had not provided adequate technical support to demonstrate that the requirements of the proposed regional Reliability Standard are sufficient to ensure the reliable operation of the Bulk-Power System within WECC. Specifically, the Commission stated that WECC did not present data indicating that extending the reserve restoration period from 60 to 90 minutes did not present an unreasonable risk that a second major contingency could occur before reserves are restored after an initial contingency.[18]

In response to the Commission's remand, WECC has developed modifications to the proposed standard, BAL-002-WECC-2, and reverted to the more stringent approach

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[16] 119 FERC ¶ 61,260 at P 55.

[17] *Id.* at P 56.

[18] *Version One Regional Reliability Standard for Resource and Demand Balancing*, 133 FERC ¶ 61,063 at P 2 (2010).

previously approved by the Commission. This filing is submitted with the specific purpose of addressing those issues mandated for modification by the Commission in its order remanding BAL-002-WECC-1. The WECC standard drafting team has also made conforming changes to the standard, bringing the styles, formatting, standardized language, and Violation Risk Factors and Violation Severity Levels into compliance with current NERC drafting conventions. The proposed regional Reliability Standard was adopted by the NERC Board of Trustees on November 7, 2012.

II. NOTICES AND COMMUNICATIONS

Notices and communications with respect to this filing may be addressed to the following:[19]

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[19] Persons to be included on the Commission's service list are indicated with an asterisk. NERC requests waiver of the Commission's rules and regulations to permit the inclusion of more than two people on the service list.

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III. BACKGROUND

A. Regulatory Framework

By enacting the Energy Policy Act of 2005,[20] Congress entrusted the Commission with the duties of approving and enforcing rules to ensure the reliability of the nation's bulk power system and with the duties of certifying an ERO that would be charged with developing and enforcing mandatory Reliability Standards, subject to Commission approval. Section 215 of the FPA states that all users, owners, and operators of the Bulk-Power System in the United States will be subject to Commission-approved Reliability Standards.

B. Basis for Approval of Proposed Regional Reliability Standard

Section 39.5(a) of the Commission's regulations requires the ERO to file with the Commission each Reliability Standard that the ERO proposes to become mandatory and enforceable in the United States and each modification to a Reliability Standard that the ERO proposes to be made effective. The Commission has the regulatory responsibility to approve standards that protect the reliability of the bulk power system. In discharging its responsibility to review, approve, and enforce mandatory Reliability Standards, the

[20] 16 U.S.C. § 824o.

Commission is authorized to approve those proposed Reliability Standards that meet the criteria detailed by Congress:

> FERC may approve, by rule or order, a proposed reliability standard or modification to a reliability standard if it determines that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest.[21]

When evaluating proposed Reliability Standards, the Commission is expected to give "due weight" to the technical expertise of the ERO and to the technical expertise of a Regional Entity organized on an Interconnection-wide basis with respect to a Reliability Standard to be applicable within that Interconnection. Order No. 672 provides guidance on the factors FERC will consider when determining whether proposed Reliability Standards meet the statutory criteria.[22]

A regional Reliability Standard proposed by a Regional Entity must meet the same standards that NERC's Reliability Standards must meet, *i.e.*, the regional Reliability Standard must be shown to be just, reasonable, not unduly discriminatory or preferential, and in the public interest.[23] Order No. 672 also requires additional criteria that a regional Reliability Standard must satisfy: a regional difference from a continent-wide Reliability Standard must either be: (1) more stringent than the continent-wide Reliability Standard (which includes a regional standard that addresses matters that the continent-wide Reliability Standard does not), or (2) a regional Reliability Standard must be necessitated by a physical difference in the Bulk-Power System.[24]

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[21] 16 U.S.C. § 824o(d)(2).

[22] *See Rules Concerning Certification of the Electric Reliability Organization; Procedures for the Establishment, Approval and Enforcement of Electric Reliability Standards, FERC Stats. & Regs.*, ¶ 31,204 at PP 320-338 ("Order No. 672"), *order on reh'g*, FERC Stats. & Regs. ¶ 31,212 (2006) ("Order No. 672-A").

[23] Section 215(d)(2) of the FPA and 18 C.F.R. §39.5(a).

[24] Order No. 672 at P 291.

As set forth in the FERC approved *WECC Reliability Standards Development Procedures,*[25] WECC's standards must be developed according to the following characteristic attributes:

- Open Access by eligible voters to all aspects of the Standard Development process
- Drafting by Subject Matter Experts that accept and respond to all public input
- Formal approval process involving response to input and final vote by the WECC Ballot Pool and WECC Board of Directors

Proposed WECC standards are subject to approval by NERC, as the ERO, and the Commission before becoming mandatory and enforceable under Section 215 of the FPA.[26] As demonstrated herein, the proposed WECC regional Reliability Standard was developed in an open, transparent, and inclusive fashion. The proposed standard was widely supported by the WECC Ballot Pool, was approved for WECC Board of Directors consideration by the WECC Standards Committee, and approved by the WECC Board of Directors and NERC as a meaningful and necessary step forward in solving a longstanding problem.

Applicable users, owners, and operators of the Bulk-Power System must adhere to NERC Reliability Standards and WECC regional Reliability Standards. NERC Reliability Standards and the WECC regional Reliability Standards are both enforced through the WECC Compliance Program.

WECC is a Regional Entity organized on an Interconnection-wide basis and the proposed regional Reliability Standard is to be applicable on an Interconnection-wide

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[25] The *WECC Development Procedure* is available at: http://www.wecc.biz/library/WECC%20Documents/Business%20and%20Governance%20Documents/WECC%20Reliability%20Standards%20Development%20Procedures.pdf

[26] 16 U.S.C. 824o.

basis. The proposed regional Reliability Standard was developed by those from the Western Interconnection, to apply in the Western Interconnection, in a process that enabled all those with an interest in the standards to be heard.

IV. JUSTIFICATION FOR APPROVAL OF PROPOSED REGIONAL RELIABILITY STANDARD

This section summarizes the development of the proposed regional Reliability Standard BAL-002-WECC-2 — Contingency Reserve; describes the reliability objectives to be achieved by the regional Reliability Standard; explains the development history of the regional Reliability Standard; and demonstrates how the standard meets the Commission's criteria for approval. NERC, in its analysis and approval of the proposed regional Reliability Standard, determined that the standard is just, reasonable, not unduly discriminatory or preferential, and in the public interest. Furthermore, NERC accepts that the standard was developed in accordance with the Commission-approved *WECC Reliability Standards Development Procedures*.

The complete development record for the proposed regional Reliability Standard is provided in **Exhibit I** and includes the development and approval process, comments received during the industry-wide comment periods, responses to those comments, ballot information, and NERC's evaluation of the proposed standard.

A. Basis and Purpose of Proposed Regional Reliability Standard BAL-002-WECC-2 — Contingency Reserve

The purpose of proposed regional Reliability Standard, BAL-002-WECC-2 — Contingency Reserve, is to specify the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions. The proposed standard applies to Balancing Authorities and Reserve Sharing Groups within the

Western Interconnection. The proposed regional Reliability standard is included in **Exhibit B** to this filing. BAL-002-WECC-2 consists of four Requirements and Attachment A, which is a practical illustration that shows how the generation amount may be calculated under Requirement R1. Attachment A is illustrative only and is provided for informational purposes, it is not a Requirement.

Proposed Requirements

R1. Each Balancing Authority and each Reserve Sharing Group shall maintain a minimum amount of Contingency Reserve, except within the first sixty minutes following an event requiring the activation of Contingency Reserve, that is:
[*Violation Risk Factor: High] [Time Horizon: Real-time operations]*

1.1 The greater of either:

- **The amount of Contingency Reserve equal to the loss of the most severe single contingency;**
- **The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation.**

1.2 Comprised of any combination of the reserve types specified below:

- **Operating Reserve – Spinning**
- **Operating Reserve - Supplemental**
- **Interchange Transactions designated by the Source Balancing Authority as Operating Reserve – Supplemental**
- **Reserve held by other entities by agreement that is deliverable on Firm Transmission Service**
- **A resource, other than generation or load, that can provide energy or reduce energy consumption**
- **Load, including demand response resources, Demand-Side Management resources, Direct Control Load Management, Interruptible Load or Interruptible Demand, or any other Load made available for curtailment by the Balancing Authority or the Reserve Sharing Group via contract or agreement.**
- **All other load, not identified above, once the Reliability Coordinator has declared an energy emergency alert signifying that firm load interruption is imminent or in progress.**

1.3 Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R. § 292.101, as addressed in FERC Opinion 464).

1.4 An amount of capacity from a resource that is deployable within ten minutes.

Requirement R1 has been significantly modified in accordance with the Commission's directives in Order No. 740. First, Requirement R1 has been modified from BAL-002-WECC-1 in accordance with the Commission's directive to develop a modification to the reserve restoration period.[27] The proposed restoration period has been modified from 90 minutes to 60 minutes, consistent with the prior (and currently-effective) version, WECC BAL-STD-002-0. This requirement is more stringent than the 90 minute restoration period set forth in the continent-wide NERC Reliability Standard. The associated Measure, Measure 1, has also been modified for consistency.

Second, Requirement R1 has been modified to explicitly provide that demand-side management technically capable of providing this service may be used as a resource for both Contingency Reserve - Spinning and Contingency Reserve - Supplemental.[28] Part 1.2 of the proposed Requirement lists the types of resources, including demand-side management, which can be used to meet Contingency Reserve requirements. As the Commission noted, this proposed modification should ensure comparable treatment of demand-side management with conventional generation or any other technology and allow demand-side management to be considered as a resource for Contingency Reserves

[27] Order No. 740 at P 28 ("we direct WECC to develop a modification to the reserve restoration period…").

[28] Order No. 740 at P 61 ("On remand, the Commission hereby adopts its NOPR proposal and directs the WECC to develop modifications to the proposed regional Reliability Standard that explicitly provide that demand-side management technically capable of providing this service may be used as a resource for both spinning and non-spinning contingency reserves.")(internal citation omitted).

on this basis without requiring the use of any particular Contingency Reserve option.[29] Furthermore, consistent with the Commission's determination in Order No. 693 and Order No. 740, the term "Spinning Reserve" has been replaced with "Operating Reserve-Spinning" and the term "Non-Spinning Reserve" has been replaced with "Operating Reserve-Supplemental," since these glossary definitions are inclusive of demand-side management, including controllable load.[30]

Third, WECC is providing additional data to support the proposed calculation of minimum Contingency Reserves in Requirement R1.[31] The Commission accepted WECC's proposal on this issue in Order No. 740, and stated that WECC's proposed calculation is more stringent than the national requirement.[32] The Commission encouraged WECC to buttress its proposal with audits specifically focused on Contingency Reserves and whether Balancing Authorities are meeting the adequacy and deliverability requirements.[33]

In response, WECC is providing two years' worth of additional data showing the amount of reserves that would be calculated for each Balancing Authority and Reserve Sharing Group under the proposed methodology. To obtain this data, WECC issued a data request to each of its Balancing Authorities and/or the Reserve Sharing Groups to

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[29] Order No. 740 at P 61.

[30] Order No. 740 at P 61 ("For example, consistent with our determinations in Order No. 693, the modification could replace the term Spinning Reserve with Operating Reserve-Spinning and Non-Spinning Reserve with Operating Reserve-Supplemental, since these glossary definitions are inclusive of demand-side management, including controllable load, in contrast to the current terms used in the proposed regional Reliability Standard")(internal citation omitted); *see also* Order No. 693 at P 1896.

[31] Under the current regional Reliability Standard, WECC BAL-STD-002-0, the total contingency reserve that a Balancing Authority must maintain is based only on generating resources. In contrast, under the proposed Requirement, the total contingency reserve that a Balancing Authority must maintain is based on a combination of the generating resources and the demand served within a Balancing Authority footprint. The equal split between load and generation represents a reasonable balance to moderate shifts in contingency reserve responsibility and costs among the applicable entities.

[32] Order No. 740 at P 39 ("We believe that WECC's proposed calculation of minimum contingency reserves is more stringent than the national requirement…").

[33] *Id.*

which the proposed standard would apply. The data request was designed to determine the amount of reserve actually required under the existing methodology under the current standard juxtaposed to the amount of reserve that would have been required had the proposed methodology in the proposed standard been applied to the same actual historical data. In other words, WECC evaluated whether, if the proposed methodology had been in place for the same period, more or less reserve would have been required. WECC received data from the following entities:

- Comision Federal de Electricidad (CFE)
- California Independent System Operator (CAISO)
- Los Angeles Department of Water and Power (LADWP)
- Northwest Power Pool (NWPP)
- Rocky Mountain Reserve Group (RMRG)
- Southwest Reserve Sharing Group (SRSG)

The data received covered the two-year period spanning April 1, 2010, Hour 00, through March 31, 2012, Hour 23, for a total of 17,546 hours, covering each season of each calendar year, for a total in excess of 100,000 data entries. Where data was missing or was clearly erroneous, WECC zeroed out those fields and marked them as "BAD DATA." WECC accepted all other received data as accurate. The resultant database is available in **Exhibit G** as well as on a publicly accessible WECC website at the URL listed below. The database can be viewed and manipulated for analysis by clicking the following link: Reserve Comparison Data.[34]

[34] Available here: http://www.wecc.biz/Standards/Development/WECC-0083/Shared%20Documents/NERC%20Filing%20-%20Final%20Documents/WECC-0083%20BAL-002-WECC-2%20Attachment%20V%20Contingency%20Reserve%20Comparison%20Two%20Year%20Data%20Final%2010-10-2012.xlsx. Should the reader have difficulty accessing the link, please contact Mr. W. Shannon Black, sblack@wecc.biz, (503) 307-5782.

When the results of the entire Interconnection were considered, for the entire two-year period examined, three respondents (CFE, LADWP, and the RMRG) showed virtually no average change under either methodology because the reserve calculation for these entities is driven by their most severe single contingency. Of the remaining three respondents, two showed a nominal decrease under the newly proposed methodology whereas one showed an increase.

During the two-year period of 2010-2012, the average increase/decrease in Contingency Reserve required under the existing methodology juxtaposed to the proposed methodology was an average decrease of 137 MW across the Western Interconnection. For comparative purposes, WECC's peak load during the two-year window was 146,950.6 MW reached at 16:30:20 on August 25, 2011. WECC's minimum load during that same period was 70,811.91 MW reached at 03:29:10 on April 18, 2010. The 137 MWs equate to .000932 of WECC's peak load and .001934 of WECC's minimum load, respectively.

Total averages were calculated as follows:

BAL-002-WECC-2 Contingency Reserve Data			
Summary of Reserve Changes between Existing and Proposed Methodology[35]			
Area	Max Increase	Max Decrease	Average Change
CFE	29	-209	0
CAISO	199	-379	-60
LADWP	0	0	0
NWPP	415	-598	15
RMRG	67	0	0
SRSG	135	-382	-43
Total System:	**299**	**-826**	**-137**

[35] CFE and RMRG had an average positive change of less than 1.0 MW due to the fact that there can be hours when the most severe single contingency is changed due to a unit being offline. Due to rounding, these numbers were reported as zero change.

Analysis of the two-year period between April 2010 and March 2012 reaches the same conclusion as that presented in WECC's previous filing. Implementation of the proposed methodology will, on average, reduce the amount of Contingency Reserve held within the Interconnection; however, the average change is so small in comparison to the load served within the Interconnection that it should have no adverse impact on reliability.

The calculation of minimum Contingency Reserves is based on three percent of net generation and three percent of net load and this fairly balances the responsibilities of Contingency Reserve providers with the financial obligations of those who would benefit most from those services. As the Commission noted in Order No. 740, under the current regional Reliability Standard, the total Contingency Reserve that a Balancing Authority must maintain is based only on generating resources.[36] By contrast, under the proposed Requirement, the total Contingency Reserve that a Balancing Authority must maintain is based on a combination of the generating resources and the demand served within a Balancing Authority footprint. The equal split between load and generation represents a reasonable balance to moderate shifts in Contingency Reserve responsibility and costs among the applicable entities.

Fourth, Requirement R1 has been modified in response to Order No. 740 and the concerns raised by commenters to include the following language in Section 1.3: "Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R. § 292.101, as addressed in FERC Opinion 464)."[37] The standard drafting team replaced the term "net generation" with "generating energy values averaged over each Clock Hour" and included a reference to

[36] Order No. 740 at P 41.

[37] Order No. 740 at P 66 ("we direct WECC to consider the concerns raised by the QF Parties and NV Energy.").

Opinion No. 464 which addresses the issue of behind-the-meter generation.[38] This change is responsive to the concern previously raised by commenters that the term "load responsibility" in BAL-STD-002-0 should be defined consistent with Opinion No. 464.[39] Opinion No. 464 addressed the treatment of qualifying facilities ("QFs") under the CAISO open access transmission tariff, and provides in relevant part (at P 40) that:

> We affirm the judge's finding that the long-standing practice in the CAISO control area of scheduling, metering and procuring reserves on a net load basis should be permitted to continue, so long as a QF has contracted for standby service with a UDC [Utility Distribution Company], *i.e.*, a contract that provides for the immediate replacement of energy in case of the QF's forced outage. The record indicates... that by contract with a QF, a UDC will provide standby service and operating reserves if there is a forced QF outage.

A similar concern was also expressed regarding BAL-002-WECC-1 regarding the definition of "net generation," as the Commission noted in Order No. 740.[40] For these reasons, the replacement of the term "net generation" and the reference to Opinion No. 464 in Requirement R1 are appropriate. Further, for illustrative purposes only, the proposed standard includes an Attachment A illustrating how required reserves may be calculated for various scenarios. Attachment A also illustrates how QF generation might be treated for purposes of the three percent generation predicate.

WECC also considered the Commission's directive to address whether a Balancing Authority may be required to carry a disproportionate share of the

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38 *California Indep. Sys. Operator Corp.*, Opinion No. 464, 104 FERC ¶ 61,196 (2003). In Opinion No. 464, the Commission ruled that generation serving load behind-the-meter does not impose ancillary service obligations on the Balancing Authority and should not be included in that entity's reserve requirements.

39 119 FERC ¶ 61,260 at P 57.

40 Order No. 740 at P 66.

Contingency Reserve obligation within the Western Interconnection.[41] The proposed standard allows for impacted Balancing Authorities and/or Reserve Sharing Groups to enter into transactions to provide Contingency Reserves for another Balancing Authority or procure Contingency Reserves from another Balancing Authority, thereby more equitably allocating generation for purposes of the reserve calculation. In reviewing the NERC Functional Model, Version 5, the standard drafting team concluded that the tasks required more closely align to the Balancing Authority than to a Generator Operator.

Finally, Requirement R1 has also been modified, consistent with Order No. 740, to clarify that Balancing Authorities and Reserve Sharing Groups within WECC are subject to the same restrictions regarding the use of firm load as Contingency Reserve as Balancing Authorities elsewhere operating under the continent-wide Reliability Standard.[42] To clarify the connection to the Energy Emergency Level 3 language, the proposed standard uses the same language from EOP-002-2.1, Attachment 1, Section B, Energy Emergency Alerts Levels, Part 3, titled "Alert 3 —Firm load interruption imminent or in progress" for purposes of the proposed Requirement R1, Section 1.2, Bullet 7 [43] wherein the types of reserve resources are dictated.

R2. Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics. ***[Violation Risk Factor: High] [Time Horizon: Real-time operations]***

2.1 Reserve that is immediately and automatically responsive to frequency deviations through the action of a governor or other control system;
2.2 Reserve that is capable of fully responding within ten minutes.

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41 Order No. 740 at PP 65-66.
42 Order No. 740 at P 49.
43 http://www.nerc.com/files/EOP-002-3.pdf.

The requirements included in Requirement R2 are included in the currently-effective version of the regional Reliability Standard, WECC BAL-STD-002-0,[44] however, Requirement R2 has been reformatted consistent with NERC Reliability Standards and the Commission's direction to achieve a reasonable level of consistency in the structure of a Reliability Standard so that there is a common understanding of the elements.[45] Requirement R2 is more stringent than the continent-wide Reliability Standard as it specifies that half of the amount of Contingency Reserve must be Operating Reserve-Spinning. The proposed regional Reliability Standard also requires that the Operating Reserve – Spinning be *automatically* responsive to frequency and be able to fully respond within ten minutes. Neither of these requirements are in the continent-wide Reliability Standard and provide a benefit to reliability.

R3. Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

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[44] BAL-STD-002-0 provides:

(ii) Contingency reserve. An amount of Spinning Reserve and Nonspinning Reserve (at least half of which must be Spinning Reserve), sufficient to meet the NERC Disturbance Control Standard BAL-002-0, equal to the greater of:

(a) The loss of generating capacity due to forced outages of generation or transmission equipment that would result from the most severe single contingency; or

(b) The sum of five percent of the load responsibility served by hydro generation and seven percent of the load responsibility served by thermal generation.

The combined unit ramp rate of each Balancing Authority's on-line, unloaded generating capacity must be capable of responding to the Spinning Reserve requirement of that Balancing Authority within ten minutes

[45] 119 FERC ¶ 61,260 at P 55.

Requirement R3 is a clarification of an existing requirement in WECC BAL-STD-002-0 which requires additional reserves for interruptible imports.[46] The term "interruptible imports" included in WECC BAL-STD-002-0 has been removed as this is not a defined term in the NERC Glossary and is subject to misinterpretation. Therefore, the standard drafting team has proposed to remove this ambiguous term and replace it with clarifying language describing which type of transactions must be covered by additional reserves. The continent-wide version of the standard does not require reserves for Interchange Transactions designated as part of the Source BA's or Source RSG's Operating Reserve-Supplemental. Therefore, this proposed Requirement is more stringent than the continent-wide Reliability Standard, BAL-002.

R4. Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

Requirement R4 is a clarification of an existing requirement in WECC BAL-STD-002-0, which requires additional reserve for on demand obligations. The continent-wide version of the standard does not require Source BAs or Source RSGs to carry additional Contingency Reserves for any transactions for Operating Reserves, either spinning or supplemental, for which they are the source. Therefore, this Requirement is more stringent than the continent-wide Reliability Standard, BAL-002.

[46] WECC BAL-STD-002-0 provides: "Additional reserve for interruptible imports. An amount of reserve, which can be made effective within ten minutes, equal to interruptible imports."

Requirements R3 and R4 specify situations in which specific transactions for obtaining Contingency Reserves require additional reserves to be carried by the appropriate BA or RSG.

B. Additional Order No. 672 Criteria for Regional Reliability Standards

As shown in **Exhibit A**, the proposed regional Reliability Standard meets each of the requirements of Commission Order 672. The exhibit provides a detailed explanation regarding how the proposed revisions to the standard meet each aspect of the order.

VI. CONCLUSION

For the reasons stated above, NERC respectfully requests that the Commission approve the proposed BAL-002-WECC-2 Contingency Reserve regional Reliability Standard and the associated proposed VRFs and VSLs included in **Exhibit B** to this filing in accordance with Section 215(d)(1) of the FPA and Part 39.5 of the Commission's regulations. NERC requests that these approvals be made effective in accordance with the implementation plan for BAL-002-WECC-2 included in **Exhibit F** to this filing.

Respectfully submitted,

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April 12, 2013

CERTIFICATE OF SERVICE

I hereby certify that I have served a copy of the foregoing document upon all parties listed on the official service list compiled by the Secretary in this proceeding.

Dated at Washington, D.C. this 12th day of April, 2013.

/s/ Stacey Tyrewala
Stacey Tyrewala

Attorney for North American Electric Reliability Corporation

Exhibit A

Order No. 672 Criteria

Order No. 672 Criteria

In Order No. 672,[1] the Commission identified a number of criteria it will use to analyze Reliability Standards proposed for approval to ensure they are just, reasonable, not unduly discriminatory or preferential, and in the public interest. The discussion below identifies these factors and explains how the proposed Reliability Standard has met or exceeded the criteria.

1. Proposed Reliability Standards must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve that goal.[2]

The proposed regional Reliability Standard, BAL-002-WECC-2 — Contingency Reserve, was developed, as stated in the document, to "specify the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions…" A level of Contingency Reserve is required to assure that capacity will be available to carry load in the event of the loss of generation supply to a reserve area within WECC.

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[1] *Rules Concerning Certification of the Electric Reliability Organization; and Procedures for the Establishment, Approval, and Enforcement of Electric Reliability Standards*, Order No. 672, FERC Stats. & Regs. ¶ 31,204, *order on reh'g*, Order No. 672-A, FERC Stats. & Regs. ¶ 31,212 (2006).

[2] Order No. 672 at P 321. The proposed Reliability Standard must address a reliability concern that falls within the requirements of section 215 of the FPA. That is, it must provide for the reliable operation of Bulk-Power System facilities. It may not extend beyond reliable operation of such facilities or apply to other facilities. Such facilities include all those necessary for operating an interconnected electric energy transmission network, or any portion of that network, including control systems. The proposed Reliability Standard may apply to any design of planned additions or modifications of such facilities that is necessary to provide for reliable operation. It may also apply to Cybersecurity protection.

Order No. 672 at P 324. The proposed Reliability Standard must be designed to achieve a specified reliability goal and must contain a technically sound means to achieve this goal. Although any person may propose a topic for a Reliability Standard to the ERO, in the ERO's process, the specific proposed Reliability Standard should be developed initially by persons within the electric power industry and community with a high level of technical expertise and be based on sound technical and engineering criteria. It should be based on actual data and lessons learned from past operating incidents, where appropriate. The process for ERO approval of a proposed Reliability Standard should be fair and open to all interested persons.

The proposed regional Reliability Standard contains a technically sound means to achieve this goal.

In June 2007, the Commission approved WECC-BAL-STD-002-0 (the predecessor of BAL-002-WECC-1 and BAL-002-WECC-2) finding that the standard was more stringent than the corresponding NERC Reliability Standard, BAL-002-0[3]. Specifically, the Commission found that WECC's requirement to restore Contingency Reserve within 60 minutes was more stringent than the 90-minute restoration period as set forth in NERC's BAL-002-0.[4] NERC concurred with the Commission's finding that the proposed WECC regional Reliability Standard establishes requirements that are more stringent than those provided for in the corresponding NERC Reliability Standard."[5]

Subsequent versions of the proposed standard sought to lessen the rigors of the restoration period to match those of the continent-wide NERC Reliability Standard. In response, the Commission remanded the proposed standard with instructions that WECC should provide additional technical justification for the relaxed criteria.[6] In response to the Commission's request, WECC no longer seeks to justify that relaxed criteria in this filing; rather, the proposed standard reverts to the more stringent approach previously approved by the Commission.

The Commission further found that the "proposed calculation of minimum contingency reserves" included in BAL-002-WECC-1 "is more stringent than the national requirement and could be part of a future proposal that the Commission could

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3 *North American Electric Reliability Corp.*, 119 FERC ¶ 61,060, at P 432 (2007).
4 *Id*.
5 Order 740 at P 11.
6 *Id* at P 14.

find to be just, reasonable, not unduly discriminatory or preferential, and in the public interest."[7]

In addition, as part of this filing, WECC has supplied technical data illustrating that its proposed Contingency Reserve allocation is virtually equal to the quantity of reserve set aside under existing processes under BAL-STD-002-0; thus, implementation of the standard will maintain reliability in this regard.

2. Proposed Reliability Standards must be applicable only to users, owners and operators of the bulk power system, and must be clear and unambiguous as to what is required and who is required to comply.[8]

The proposed regional Reliability Standard is applicable only to Balancing Authorities and Reserve Sharing Groups within the WECC region. The standard clearly identifies these applicable entities and is clear and unambiguous as to what is required to comply.

3. A proposed Reliability Standard must include clear and understandable consequences and a range of penalties (monetary and/or non-monetary) for a violation.[9]

The proposed regional Reliability Standard includes a VRF and at least one VSL for each requirement. The ranges of penalties for violations will be based on the applicable VRF and VSL and will be administered based on the sanctions table and

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[7] Order No. 740 at P 39.

[8] Order No. 672 at P 322. The proposed Reliability Standard may impose a requirement on any user, owner, or operator of such facilities, but not on others.

Order No. 672 at P 325. The proposed Reliability Standard should be clear and unambiguous regarding what is required and who is required to comply. Users, owners, and operators of the Bulk-Power System must know what they are required to do to maintain reliability.

[9] Order No. 672 at P 326. The possible consequences, including range of possible penalties, for violating a proposed Reliability Standard should be clear and understandable by those who must comply.

supporting penalty determination process described in the FERC-approved NERC Sanction Guidelines.[10]

WECC developed the VSLs and VRFs proposed for assignment to BAL-002-WECC-2 following applicable NERC and FERC guidance. **Exhibit E** to this filing contains the VSL and VRF guideline analysis for BAL-002-WECC-2.

4. A proposed Reliability Standard must identify clear and objective criterion or measure for compliance, so that it can be enforced in a consistent and non-preferential manner. [11]

For each Requirement specified in BAL-002-WECC-2, there is a corresponding objective measurement by which the assigned task can be measured. These objective measurements include, but are not limited to, possession of specified documentation that provides evidence that the task assigned in the corresponding Requirement was achieved.

5. Proposed Reliability Standards should achieve a reliability goal effectively and efficiently — but do not necessarily have to reflect "best practices" without regard to implementation cost or historical regional infrastructure design.[12]

BAL-002-WECC-2 reaches its goals effectively and efficiently by using existing business practices. Further, noting that implementation of the document may take time, the proposed effective date is designed to afford applicable entities sufficient time to implement any needed contractual arrangements.

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[10] NERC Rules of Procedure Appendix 4B. Available at: http://www.nerc.com/page.php?cid=1|8|169.

[11] Order No. 672 at P 327. There should be a clear criterion or measure of whether an entity is in compliance with a proposed Reliability Standard. It should contain or be accompanied by an objective measure of compliance so that it can be enforced and so that enforcement can be applied in a consistent and non-preferential manner.

[12] Order No. 672 at P 328. The proposed Reliability Standard does not necessarily have to reflect the optimal method, or "best practice," for achieving its reliability goal without regard to implementation cost or historical regional infrastructure design. It should however achieve its reliability goal effectively and efficiently.

BAL-002-WECC-2 establishes the quantity and type of Contingency Reserve required to ensure reliability under normal and abnormal conditions. Further, the proposed standard equally splits the allocation of reserves between load and generation. In response to cost allocation concerns, the Commission stated:

> [U]nder the proposed requirement, the total contingency reserve that a balancing authority must maintain is based on a combination of the generating resources and the demand served within a balancing authority footprint. We agree with NERC that the equal split between load and generation represents a reasonable balance to moderate shifts in contingency reserve responsibility and costs among the applicable entities.[13]

To assist the applicable entities in implementing this reasonable balance of costs, the drafting team has designed the standard to allow for a shifting of the burden between applicable entities. Realizing that such a shift will require contractual agreements and negotiations, the drafting team has requested an Effective Date of "the first day of the third quarter following applicable regulatory approval." The implementation plan for BAL-002-WECC-2 is included in **Exhibit F.**

6. Proposed Reliability Standards cannot be "lowest common denominator," *i.e.*, cannot reflect a compromise that does not adequately protect Bulk-Power System reliability. Proposed Reliability Standards can consider costs to implement for smaller entities, but not at consequences of less than excellence in operating system reliability.[14]

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[13] Order 740 at P 41.

[14] Order No. 672 at P 329. The proposed Reliability Standard must not simply reflect a compromise in the ERO's Reliability Standard development process based on the least effective North American practice — the so-called "lowest common denominator" — if such practice does not adequately protect Bulk-Power System reliability. Although FERC will give due weight to the technical expertise of the ERO, we will not hesitate to remand a proposed Reliability Standard if we are convinced it is not adequate to protect reliability.

Order No. 672 at P 330. A proposed Reliability Standard may take into account the size of the entity that must comply with the Reliability Standard and the cost to those entities of implementing the proposed Reliability Standard. However, the ERO should not propose a "lowest common denominator" Reliability Standard that would achieve less than excellence in operating system reliability solely to protect against reasonable expenses for supporting this vital national infrastructure. For example, a small owner or

The proposed regional Reliability Standard does not reflect a "lowest common denominator" approach. BAL-002-WECC-2 requires a more stringent restoration period and a more stringent maintenance of Contingency Reserve than that required by the parallel NERC continent-wide standard (see comments regarding technical justification above). The needs for the more stringent approach, based upon the specific attributes of the Western Interconnection, were noted by the Commission in Order No. 740.[15] In addition to the above responses describing how BAL-002-WECC-2 is a more stringent approach that will maintain and increase reliability, BAL-002-WECC-2 specifically addresses cost-related concerns raised by Qualifying Facilities ("QFs"). To ensure the QFs burden remained consistent with existing Commission Orders, the proposed standard requires that those facilities be treated in accordance with existing Opinion No. 464.

7. Proposed Reliability Standards must be designed to apply throughout North America to the maximum extent achievable with a single Reliability Standard while not favoring one geographic area or regional model. It should take into account regional variations in the organization and corporate structures of transmission owners and operators, variations in generation fuel type and ownership patterns, and regional variations in market design if these affect the proposed Reliability Standard.[16]

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operator of the Bulk-Power System must bear the cost of complying with each Reliability Standard that applies to it.

[15] Order No. 740 at P 7 and P 22.

[16] Order No. 672 at P 331. A proposed Reliability Standard should be designed to apply throughout the interconnected North American Bulk-Power System, to the maximum extent this is achievable with a single Reliability Standard. The proposed Reliability Standard should not be based on a single geographic or regional model but should take into account geographic variations in grid characteristics, terrain, weather, and other such factors; it should also take into account regional variations in the organizational and corporate structures of transmission owners and operators, variations in generation fuel type and ownership patterns, and regional variations in market design if these affect the proposed Reliability Standard.

This is a regional Reliability Standard developed by and applicable to the Balancing Authorities and Reserve Sharing Groups operating within the United States portion of the Western Interconnection. The need for a more stringent approach, based upon the specific attributes of the Western Interconnection was noted by the Commission in Order 740. [17]

8. Proposed Reliability Standards should cause no undue negative effect on competition or restriction of the grid beyond any restriction necessary for reliability.[18]

The proposed Reliability Standard does not restrict the available transmission capability or limit use of the bulk-power system in a preferential manner.

The proposed standard will be applied equally across the WECC region and therefore will not negatively affect competition. The standard may enhance competition as it invites creation of commercial arrangements for reserves (R1.2) and illustrates via Attachment A of the standard how those commercial arrangements might be treated. Recognizing that these endeavors may take some time to implement, the proposed standard calls for an Effective Date that allows sufficient time to negotiate new business arrangements.

9. The implementation time for the proposed Reliability Standard is reasonable.[19]

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[17] Order No. 740 at P 21, 23.

[18] Order No. 672 at P 332. As directed by section 215 of the FPA, FERC itself will give special attention to the effect of a proposed Reliability Standard on competition. The ERO should attempt to develop a proposed Reliability Standard that has no undue negative effect on competition. Among other possible considerations, a proposed Reliability Standard should not unreasonably restrict available transmission capability on the Bulk-Power System beyond any restriction necessary for reliability and should not limit use of the Bulk-Power System in an unduly preferential manner. It should not create an undue advantage for one competitor over another.

[19] Order No. 672 at P 333. In considering whether a proposed Reliability Standard is just and reasonable, FERC will consider also the timetable for implementation of the new requirements, including how the proposal balances any urgency in the need to implement it against the reasonableness of the time allowed for those who must comply to develop the necessary procedures, software, facilities, staffing or other relevant capability.

The proposed effective dates for the standard are just and reasonable and are designed to allow applicable entities an adequate amount of time to implement the necessary changes to ensure implementation across the region without introducing unnecessary delay. The proposed effective date is explained in the proposed Implementation Plan, attached as **Exhibit F**.

10. The Reliability Standard was developed in an open and fair manner and in accordance with the Commission-approved Reliability Standard development process.[20]

WECC followed the standard development process approved by FERC and in effect at the time of each step in the process.

In accordance with Step 3 of the Process for Developing and Approving WECC Standards,[21] as well as its successor document, the Reliability Standards Development Procedures,[22] effective March 1, 2012, all drafting team meetings are open to the public. Between February 22, 2011 and April 2, 2012, the BAL drafting team conducted 16 open meetings. Notice of the meetings was provided to NERC, posted on WECC's website and embedded in the minutes of each meeting. Meeting minutes are posted on WECC's website and accessible by the public.

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[20] Order No. 672 at P 334. Further, in considering whether a proposed Reliability Standard meets the legal standard of review, we will entertain comments about whether the ERO implemented its Commission-approved Reliability Standard development process for the development of the particular proposed Reliability Standard in a proper manner, especially whether the process was open and fair. However, we caution that we will not be sympathetic to arguments by interested parties that choose, for whatever reason, not to participate in the ERO's Reliability Standard development process if it is conducted in good faith in accordance with the procedures approved by FERC.

[21] Available here: http://www.wecc.biz/library/Documentation%20Categorization%20Files/Forms/AllItems.aspx?RootFolder=%2Flibrary%2FDocumentation%20Categorization%20Files%2FRetire%20and%20Archive&FolderCTID=0x01200015E7900DB2E794468FDE06D520B95C07&View=%7bAD6002B2-0E39-48DD-B4B5-9AFC9F8A8DB3%7d.

[22] Available here: http://www.wecc.biz/library/WECC%20Documents/Business%20and%20Governance%20Documents/WECC%20Reliability%20Standards%20Development%20Procedures.pdf.

All meetings were supported by a telephone conference bridge associated with an on-line Internet visual capability, allowing all participants to see the document(s) as they were being developed. Further, this team held a public, face-to-face technical conference, during which all participants were invited to bring their standard-related questions directly to the drafting team.

The proposed standard was posted for public comment by WECC on five different occasions and by NERC on one additional occasion. Comments were solicited, received, considered, and answered. Comments and their responses are posted on WECC's website.[23]

The proposed regional Reliability Standard has been developed and approved by industry stakeholders using WECC's *Reliability Standards Development Procedures* and was approved by the WECC Board of Directors on June 26, 2012. The standard was subsequently presented to and adopted by the NERC Board of Trustees on November 7, 2012. Therefore, WECC has utilized its standard development process in good faith and in a manner that is open and fair. No commenters disagreed with the open and fair implementation of the WECC process.

11. NERC must explain any balancing of vital public interests in the development of proposed Reliability Standards.[24]

Neither NERC nor WECC has identified any competing public interests regarding the request for approval of this proposed Reliability Standard. No comments were received that indicated the proposed standard conflicts with other vital public interests.

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[23] Available here: http://www.wecc.biz/Standards/Development/WECC-0083/default.aspx.

[24] Order No. 672 at P 335. Finally, we understand that at times development of a proposed Reliability Standard may require that a particular reliability goal must be balanced against other vital public interests, such as environmental, social and other goals. We expect the ERO to explain any such balancing in its application for approval of a proposed Reliability Standard.

12. Proposed Reliability Standards must consider any other appropriate factors.[25]

No other factors relevant to whether the proposed Reliability Standard is just and reasonable were identified.

Additional Criteria for Regional Reliability Standards

Order No. 672 also establishes additional criteria that a regional Reliability Standard must satisfy: "A regional difference from a continent-wide Reliability Standard must either be (1) more stringent than the continent-wide Reliability Standard including a regional difference that addresses matters the continent-wide Reliability Standard does not, or (2) a Regional Reliability Standard that is necessitated by a physical difference in the Bulk-Power System."[26]

The proposed regional Reliability Standard is more stringent than the continent-wide Reliability Standard. In Order No. 740 (at P 39), the Commission acknowledged that the "proposed calculation of minimum contingency reserves" included in BAL-002-WECC-1 "is more stringent than the national requirement" and this element has been retained in BAL-002-WECC-2. Further, WECC's requirement to restore Contingency Reserve within 60 minutes is more stringent than the 90-minute restoration period as set forth in the continent-wide Reliability Standard. In addition, Requirements R2 through R4 contain Contingency Reserve requirements not present in the continent-wide Standard. For these reasons, the proposed regional Reliability Standard is more stringent than the continent-wide Reliability Standard.

[25] Order No. 672 at P 323. In considering whether a proposed Reliability Standard is just and reasonable, we will consider the following general factors, as well as other factors that are appropriate for the particular Reliability Standard proposed.

[26] Order No. 672 at P 291.

Exhibit B

BAL-002-WECC-2 — Contingency Reserve Regional Reliability Standard Proposed for Approval

A. Introduction

1. **Title:** **Contingency Reserve**

2. **Number:** BAL-002-WECC-2

3. **Purpose:** To specify the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions.

4. **Applicability:**

4.1 Balancing Authority

4.1.1. The Balancing Authority is the responsible entity unless the Balancing Authority is a member of a Reserve Sharing Group, in which case, the Reserve Sharing Group becomes the responsible entity.

4.2 Reserve Sharing Group

4.2.1. The Reserve Sharing Group when comprised of a Source Balancing Authority becomes the source Reserve Sharing Group.

4.2.2. The Reserve Sharing Group when comprised of a Sink Balancing Authority becomes the sink Reserve Sharing Group.

5. **Effective Date:** On the first day of the third quarter following applicable regulatory approval.

B. Requirements and Measures

R1. Each Balancing Authority and each Reserve Sharing Group shall maintain a minimum amount of Contingency Reserve, except within the first sixty minutes following an event requiring the activation of Contingency Reserve, that is: [*Violation Risk Factor: High] [Time Horizon: Real-time operations]*

1.1 The greater of either:

- The amount of Contingency Reserve equal to the loss of the most severe single contingency;
- The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly

integrated generation.

1.2 Comprised of any combination of the reserve types specified below:

- Operating Reserve – Spinning
- Operating Reserve - Supplemental
- Interchange Transactions designated by the Source Balancing Authority as Operating Reserve – Supplemental
- Reserve held by other entities by agreement that is deliverable on Firm Transmission Service
- A resource, other than generation or load, that can provide energy or reduce energy consumption
- Load, including demand response resources, Demand-Side Management resources, Direct Control Load Management, Interruptible Load or Interruptible Demand, or any other Load made available for curtailment by the Balancing Authority or the Reserve Sharing Group via contract or agreement.
- All other load, not identified above, once the Reliability Coordinator has declared an energy emergency alert signifying that firm load interruption is imminent or in progress.

1.3 Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Opinion 464).

1.4 An amount of capacity from a resource that is deployable within ten minutes.

M1. Each Balancing Authority and each Reserve Sharing Group will have documentation demonstrating its Contingency Reserve was maintained, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Part 1.1

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates its Contingency Reserve was maintained in accordance with the amounts identified in Requirement R1, Part 1.1, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Attachment A is a practical illustration showing how the generation amount may be calculated under Requirement R1.

- Where Dynamic Schedules are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1 may include, but is not limited to, documentation showing a reciprocal acknowledgement as to which entity is

carrying the reserves. This transfer may be all or some portion of the physical generator and is not limited to the entire physical capability of the generator.

- Where Pseudo-Ties are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1, may include, but is not limited to, documentation accounting for the transfers included in the Pseudo-Ties.

Part 1.2

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.2. Evidence may include, but is not limited to, documentation that reserves were comprised of the types listed in Requirement R1, Part 1.2 for purposes of meeting the Contingency Reserve obligation of Requirement R1. Additionally, for purposes of the last bullet of Requirement R1, Part 1.2, evidence of compliance may include, but is not limited to, documentation that the reliability coordinator had issued an energy emergency alert, indicating that firm Load interruption was imminent or was in progress.

Part 1.3

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.3. Evidence of compliance with Requirement R1, Part 1.3 may include, but is not limited to, documentation that Contingency Reserve amounts are based upon load and generating data averaged over each Clock Hour and excludes Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Opinion 464.

Part 1.4

Evidence of compliance with Requirement R1, Part 1.4 may include, but is not limited to, documentation that the reserves maintained to comply with Requirement R1, Part 1.4 are fully deployable within ten minutes.

R2. Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

2.1 Reserve that is immediately and automatically responsive to frequency deviations through the action of a governor or other control system;

2.2 Reserve that is capable of fully responding within ten minutes.

M2. Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates it maintained at least half of the Contingency Reserve identified in Requirement R1 as Operating Reserve – Spinning, averaged over each Clock Hour, that met both of the reserve characteristics identified in Requirement R2, Part 2.1 and Requirement R2, Part 2.2.

R3. Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M3. Each Sink Balancing Authority and each sink Reserve Sharing Group will have dated documentation demonstrating it maintained an amount of Operating Reserve, in addition to the Contingency Reserve identified in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, for the entire period of the transaction, except within the first sixty minutes following an event requiring the activation of Contingency Reserves, in accordance with Requirement 3.

R4. Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M4. Each Source Balancing Authority and each source Reserve Sharing Group will have dated documentation that demonstrates it maintained an amount of additional Operating Reserves identified in Requirement R1, greater than or equal to the amount and type of that identified in Requirement 4, for the entire period of the transaction.

C. Compliance

1. Compliance Monitoring Process

1.1 Compliance Enforcement Authority

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

For responsible entities that are also Regional Entities, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

1.2 Compliance Monitoring and Assessment Processes:

Compliance Audit

Self-Certification

Spot Checking

Compliance Investigation

Self-Reporting

Complaint

1.3 Evidence 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.

Each Balancing Authority and each Reserve Sharing Group shall keep evidence for Requirement R1 through R4 for three years plus calendar current.

1.4. Additional Compliance Information

1.4.1. This Standard shall apply to each Balancing Authority and each Reserve Sharing Group that has registered with WECC as provided in Part 1.4.2 of Section C.

Each Balancing Authority identified in the registration with WECC as provided in Part 1.4.2 of Section C 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: 1) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, 2) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and 3) 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 Part 1.4.2 of Section C 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: 1) 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, 2) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection 1) of this Part 1.4.3 of Section C, and 3) 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 1) of this Part 1.4.3 of Section C (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).

1.4.4. If an agent properly designated in accordance with Part 1.4.2 of Section C 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 Part 1.4.2 of Section C shall be subject to this Standard on an individual basis.

Table of Compliance Elements

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.
R2	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 100% but greater than or	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 90% but	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 80% but	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 70% of the

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			equal to 90% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	greater than or equal to 80% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	greater than or equal to 70% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.
R3	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R3.
R4	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			Reserve Operating Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R4.	Reserve Operating Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R4.	Reserve Operating Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R4.	Reserve Operating Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R4.

D. Regional Variances
None.

E. Interpretations
None.

F. Associated Documents
None.

Attachment A

Attachment A is illustrative only; it is not a requirement. Requirement R1 calls for an amount of Contingency Reserve to be maintained, predicated on an amount of generation and load required in Requirement R1, Part 1.1., specifically:

> **"1.1** The greater of either:
>
> - The amount of Contingency Reserve equal to the loss of the most severe single contingency;
> - The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation."

Attachment A illustrates one possible way to account for and calculate the amount of generation upon which the Contingency Reserve amount is predicated.

Below is a practical illustration showing how the generation amount may be calculated under Requirement R1 for Balancing Authorities (BA) and Reserve Sharing Groups (RSG).

BA1 / RSG 1	**Generation**	**Part of Generator**
Generator 1	300 MWs online	Yes
Generator 2	200 MWs online	Yes
Generator 3 (Pseudo-Tied out to BA2)	100 MWs online	No
Generator 4 QF (has backup contract)	10 MWs online	No
Generator 5 QF in EMS	10 MWs online	Yes
Generator 6	0 MWs online	Yes
Dynamic Schedule to BA2 from BA1[1]	(50 MWs)	
Generation	620 MWs	(The sum of gen 1-6)
BA generation (EMS)	510 MWs	(The sum of gen 1, 2, and 5)
Generation to use Under BAL-002-WECC-1	460 MWs**	(The sum of gen 1, 2 and 5 minus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would maintain reserves based on 510 MWs Generation.

BA2 / RSG2	**Generation**	**Part of Generator**
Generator 11	100 MWs	Yes

[1] Note: This Dynamic Schedule is not the same as the Generator 3 Pseudo-Tie.

Generator 12	100 MWs	Yes
Generator 3 (Pseudo-Tied in from BA1)	100 MWs	Yes
Dynamic Schedule from BA1 to BA2	50 MWs	Yes
Generation	300 MWs	(The sum of gen 11, 12 and 3.)
BA generation (EMS)	300 MWs	(The sum of gen 11, 12 and 3)
Generation to use Under BAL-002-WECC-1	350 MWs**	(The sum of gen 11, 12 and 3 plus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would have to maintain reserves based on 510MWs Generation and BA2 would determine its generation to be 300 MWs.

Exhibit C

Consideration of Comments

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Regional Reliability Standard BAL-002-WECC-1

The Regional Reliability Standard Drafting Team (Drafting Team) thanks all commentors who submitted comments on the BAL-002-WECC-1 – Contingency Reserve (Order 740 Remand).[1] This standard was posted for a 45-day public comment period from January 6, 2012 through February 20, 2012. Stakeholders were asked to provide feedback on the standard and associated documents through a special electronic comment form. There were 10 sets of comments, including comments from 13 different people from 10 companies representing six of the 10 Industry Segments as shown in the table on the following pages.

All comments submitted may be reviewed in their original format on the standard's project page:

http://www.nerc.com/filez/regional_standards/regional_reliability_standards_under_development.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President of Standards and Training, Mark Lauby, at 404-446-2560 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[2]

[1] Developed as WECC-0083.

[2] The appeals process is in the Reliability Standards Development Procedures: http://www.nerc.com/standards/newstandardsprocess.html.

Index to Questions, Comments, and Responses

The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Chris Higgins	Bonneville Power Administration	X		X		X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Bart	McManus	WECC	1
2.	Fran	Halpin	WECC	5
3.	Brenda	Anderson	WECC	6

2.	Individual	Chris Chavez	Salt River Project	X		X		X	X				
3.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X				
4.	Individual	John Canavan	NorthWestern Corporation	X		X		X					
5.	Individual	Keira Kazmerski	Xcel Energy	X		X		X	X				
6.	Individual	Claire Lloyd	Tacoma Power	X		X	X	X	X				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
7.	Individual	Mark B Thompson	Alberta Electric System Operator		X								
8.	Individual	Mike Goodenough	Powerex						X				
9.	Individual	Richard Vine	California ISO		X								
10.	Individual	Tina Gary	Portland General Electric Company	X		X		X	X				

1. **Do you agree the proposed standard is being developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure?**

Summary Consideration:

Ten of the ten respondents agreed the proposed standard is being developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure. The Drafting Team appreciates the consensus.

Organization	Yes or No	Question 1 Comment
Bonneville Power Administration	Yes	
Salt River Project	Yes	
PacifiCorp	Yes	
NorthWestern Corporation	Yes	
Xcel Energy	Yes	
Tacoma Power	Yes	Tacoma Power acknowledges that the proposed new WECC standard was developed and routed through the WECC and subsequently through the NERC process. Tacoma Power has not supported this proposed new WECC standard due to the fact that it will produce approximately the same amount of total contingency operating reserves, yet it will make a significant shifting of the contingency reserve obligation between the entities, including new entities. This shifting of the contingency reserve obligation has not been shown to be a benefit to the interconnection and is unnecessary.

Organization	Yes or No	Question 1 Comment
Response: The Drafting Team notes and appreciates your consensus as to use of the process for developing the proposed standard and commends Tacoma for its continued participation. The Drafting Team also notes Tacoma's concern that when changes are made to the reliability aspects of the grid via implementation of reliability standards, these changes do not come without a shifting of obligation or cost. Further, the Drafting Team acknowledges that as standards are implemented, cost shifting often occurs giving way to the argument that the sole intent of the changes is financially motivated. Finally, the Drafting Team acknowledges that these facts are no mystery to the industry and the processes for development of standards hold the potential to be used for financial as opposed to reliability-related purposes. The Drafting Team did consider the potential of cost shifting in a number of forums, largely in the early years of developing this standard. This Drafting Team and its predecessors concluded that an even split of the burden between generation and load was a reasonable approach, albeit, not the only possible approach. Based on the evaluation of different alternatives to determine the allocation methodology, the Drafting Team determined that this methodology had the least negative effect on the greatest number of entities. The Drafting Team acknowledges that anytime there is a cost shift, some will incur greater costs, some will lower their costs, and some will remain revenue neutral. Support or opposition for the shift generally depends on which side of the equation one falls. As to this specific standard, the Drafting Team does not claim to know all the differences between those entities dissuaded by the standard because it may harm their own profit and loss statements versus those in support of the standard because its higher criteria bolsters reliability. Rather, the Drafting Team has endeavored to meet both the mandates of Order 740 as well as the mandate to be responsive imposed by the Process for Developing and Approving WECC Standards (Process). The Drafting Team is reluctant to meet one obligation without also meeting the other.		
Alberta Electric System Operator	Yes	

Organization	Yes or No	Question 1 Comment
Powerex	Yes	
California ISO	Yes	
Portland General Electric Company	Yes	Although the process has been open, WECC disregarded some major concerns voiced by the industry. Portland General Electric Company (PGE) is concerned that the consequences of the proposed standard were not fully considered and worry that the standard will have a negative impact on the reliability of the BES in the Western region. The reliability concerns with the standard must be addressed before it is approved for use by the industry.Under WECC rules, a proposed standard is submitted to NERC with only a simple majority, potentially telephonic, vote of the WECC standing committee membership. This process differs from that used by NERC, which will not pass a standards revision without a 70% weighted majority of members approving the proposed standard. During the 2011 balloting of subject matter experts and the standing committee, the proposal failed and the WECC Board sent the proposal back to the drafting committee to address issues presented in the "No" vote statements. However, the proposal is now up for comment simultaneously within both WECC and NERC without adequately addressing the concerns of the voting members.

Response:

The Drafting Team notes and appreciates your consensus as to use of the process for developing the proposed standard and commends PGE for its continued participation.

The Drafting Team notes PGE's concurrence that the process has been fair and open. Part of that process has been the receipt, consideration, and response to PGE's comments each time they have been submitted. The Drafting Team suggests that disagreement with PGE's position is not the same as disregarding PGE's position. Noting that numerous entities have commented on the document during its development, many of those entities are diametrically opposed to

Organization	Yes or No	Question 1 Comment
PGE's position. All positions cannot be accommodated; however, all positions are considered. Noting PGE's concurrence that the process has been fair and open, the Drafting Team points out that although the WECC process differs from the NERC process it still maintains a number of required tiered approvals before the document can be finally approved. Specifically, solely within WECC, the Drafting Team, which is comprised of subject matter experts, must first approve the document for forwarding to the Operating Committee. Thereafter, the Operating Committee must approve of the document and subsequently the WECC Board of Directors must approve the document. As for the document being forwarded through the process without regard to consideration of the NERC comments received during this posting, that 45-day period closed on February 20, 2012. The Drafting Team met to review the comments on February 23, 2012 before making any decision to move the document forward in the development process. The Drafting Team assures PGE that PGE's comments have been received, considered, and addressed. They have not been disregarded. Finally, as to the May 19, 2011 vote, as drafted at that time the standard was approved by a majority of the Transmission Customers and failed by only three votes in the Transmission Providers category. Had those three votes been affirmative the document would have moved forward without additional change. In response to the negative votes, the Drafting Team considered the industry's input, made a number of very positive changes, and believes the document as drafted now addresses the majority of all "no" votes cast during the May 19, 2011 ballot.		

2. Does the proposed standard pose an adverse impact to reliability or commerce in a neighboring region or interconnection?

Summary Consideration: Of the ten respondents, eight stated the standard poses no adverse impact to reliability. Of the remaining two, Powerex is concerned that interruptible imports will not be covered and PGE is concerned that markets and transmission might not be available, and if available, this results in an unnecessary cost shift. As to Powerex, interruptible are addressed in R3 and R4. As to PGE's concerns, the team concluded that a mature capacity market does exist. As to the need for other markets to mature, the team believes there is ample industry experience to indicate that a market will be made where the need for a market is expressed.

Organization	Yes or No	Question 2 Comment
Bonneville Power Administration	No	
Salt River Project	No	
PacifiCorp	No	
NorthWestern Corporation	No	
Xcel Energy	No	The proposed standard addresses the shortcomings of the existing standard as it relates to commercial impacts and reliability issues while maintaining a reserve requirement comparable to the existing requirement. The existing standard pits Balancing Authority operators against non-Balancing Authority owned generation and raises questions as to what is and is not allowed when it comes to selling "firm" power from these generators. The proposed standard removes this issue from the standard and allows the Balancing Authority operator to determine the reserve quantity without having to know each transaction's impact to the reserve requirement.
Response: The Drafting Team appreciates your support and concurs with your conclusion.		

Organization	Yes or No	Question 2 Comment
Tacoma Power	No	Tacoma Power does not know of any adverse impact to any neighboring region or interconnection.
Response: The Drafting Team appreciated your support and concurs with your conclusion.		
Alberta Electric System Operator	No	The AESO does not agree with the FERC assessment that an EEA3 level is the appropriate level for a supply shortfall situation when using firm load as reserves. An EEA3 is defined as - firm load curtailment is immanent or in progress. The AESO does not believe that using firm load as reserves, in this situation, is an "imminent" firm load curtailment (R 1.2 last bullet). NERC EOP-002-3 Attachment 1 supports this position.
Response: The Drafting Team appreciates AESO's input regarding the issue of "EEA3." In FERC Order 740, P47, "NERC [agreed] with WECC that a reliability coordinator must declare a capacity or energy emergency before firm load could be considered to maintain contingency reserves…" In answering that position, FERC stated at P49, that "[B]alancing authorities and reserve sharing groups within WECC are subject to the same restrictions regarding the use of firm load as contingency reserve as balancing authorities elsewhere operating under the continent-wide Reliability Standard." To clarify the EEA3 issue, the proposed standard allows for Contingency Reserve to be comprised of "All other load…once the Reliability Coordinator has declared an energy emergency alert signifying that firm load interruption is imminent or in progress." (See R1, 1.2) It should be noted that the phrase "firm load interruption imminent or in progress" comes directly from the title of EOP-002-3, Capacity and Energy Emergencies, Attachment 1-EOP-002-2.1, Energy Emergency Alerts, "3. Alert 3 – Firm load interruption imminent or in progress" (AKA: EEA3 alert.)		
Powerex	Yes	The elimination of the requirement to carry additional reserves for interruptible imports may be a step backward in relaibility until such time that the issue of reserve requirements associated with interruptible imports is addressed in some way, either through another standard development process or a regional criterion that specifically identifies the operating reserves required for interruptible imports.

Organization	Yes or No	Question 2 Comment
Response: As to the use of the undefined terms “interruptible imports” or “interruptible load,” the Drafting Team recognized that within WECC the colloquial use of these phrases is not always universally understood or implemented in a standardized fashion. To address this concern the Drafting Team opted to use the NERC-defined term “Interruptible Load” contained in the NERC Glossary to avoid any misunderstanding. R3 of the proposed standard directly addresses the concept of interruptible schedules and R4 addresses the concept of on-demand energy. The standard is not designed to address how a Balancing Authority addresses market transactions (i.e., parsing of the energy codes). The standard as drafted does not preclude the continued use of the e-Tag system in any of its iterations. By contrast, the standard is designed to address Contingency Reserve obligations and Contingency Reserve transactions. The standard requires that the seller of Contingency Reserves hold reserves to meet that obligation. The standard is designed to ensure that a Balancing Authority carries reserves sufficient to respond to any loss of resource to include loss of its own generation or loss of an import. Of note, the remand order did not take issue with the associated language as drafted. While this approach may not align with all parties’ interpretation of the retired MORC language, the Drafting Team believes it addresses the reliability needs of the grid.		
California ISO	No	
Portland General Electric Company	Yes	PGE is concerned that the proposed standard puts the responsibility to provide reserves in part on the Sink Balancing Authorities (BAs)/Load Serving Entities (LSEs), which are subject to an immature bilateral market for acquisition of said reserves. If Sink BAs / LSEs are not able to acquire the proposed reserve level, they could be forced to shed load to remain compliant with the proposed standard. There is a fundamental difference between the acquisition of reserves in an organized market compared to a bilateral market such as that prominent in the WECC region. In a bilaterally based market, because generators are not subject to must-run

Organization	Yes or No	Question 2 Comment
		requirements and are not required to offer their generation into the market, Sink BAs /LSEs do not have assured access to spinning and non-spinning capacity. Therefore, reserve requirements are currently maintained by the generators in the majority of the WECC region. Generators are the only entities that have the assured ability, without shedding load, to respond to contingency events. The transfer of reserve obligation from generators to load is an unnecessary cost shift from the parties physically able to perform, to parties that must contract. Moreover, even if a contracting party is able to secure reserves, there would be no assurance that they could secure transmission on a system encumbered due to the requirements of the proposed standard. Simply put, the proposed BAL-002-WECC-01 shifts costs with no associated increase in reliability, and would potentially reduce reliability and increase transmission constraints in the WECC region.

Response:

Issue #1: Immature Market

The Drafting Team understands PGE's need for absolute certainty that a market will exist for the services described in the proposed standard. The Drafting Team also acknowledges PGE's statement that, indeed, a market does not exist, though it is immature. Additionally, the Drafting Team points PGE to PacifiCorp's statement below suggesting that, even if there is an immature market today, there is a likelihood that a new market will self-initiate to meet the needs of the marketplace. Although there is no guarantee that this standard will create a market, it is safe to say that — based on industry history — where a market need is expressed, a market will rise up to meet it. Further, there is no model that can perfectly predict market forces; thus, waiting on one as the precursor for addressing a reliability concern does not seem the wisest approach.

Issue #2: Transfers reserve obligation to contract parties as opposed to Generators

Although there may not be a mature bilateral market, there is a mature capacity market from which the required resources can be purchased. These capacity resources can and do provide the required resources based on their loading.

Organization	Yes or No	Question 2 Comment
Issue #3: No guarantee wires will be there The standard spreads the burden equally between load and generation. This spread better locates the resource to the load. Therefore, this standard provides an increased reliability over its predecessor in that it requires both load and generation (not just generation) to carry the reserves.		

3. Does the proposed standard pose a serious and substantial threat to public health, safety, welfare, or national security?

Summary Consideration: Of the ten respondents, all ten are in accord that the proposed standard either poses no serious/substantial threat to public health, safety, welfare, or national security; or, in the alternative, they are not in a position to perform a full analysis.

Organization	Yes or No	Question 3 Comment
Bonneville Power Administration	No	
Salt River Project	No	
PacifiCorp	No	
NorthWestern Corporation	No	
Xcel Energy	No	
Tacoma Power	No	Tacoma Power notes that the contingency reserve obligation will be shifted between the entities under the proposed new WECC standard. We do not have the expertise to determine if there is any serious or substantial threat to public health, safety, welfare, or national security due to the shifting of contingency reserve obligation between the entities.
Response: The Drafting Team appreciates your observation.		
Alberta Electric System Operator	No	
Powerex	No	
California ISO	No	

Organization	Yes or No	Question 3 Comment
Portland General Electric Company	No	

4. Does the proposed standard pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability?

Summary Consideration: Of the nine respondents, seven agree that the standard does not pose a serious/substantial burden on competitive markets within the interconnection that is not necessary for reliability. One did not respond. Of the two concerned respondents, Tacoma is concerned that there is no guarantee that a mature bilateral market will ever exist; albeit, they concur an immature market now exists. By contrast, PacifiCorp sees that passage of the standard could be the catalyst to creation of a new market. The standard cannot assure a market will be created; however, there is historical precedence to show that where a market need is expressed – a market will evolve. As to PGE's multiple concerns: 1) anytime a standard is implemented resulting in a cost shift, some will pay more, some will pay less and some will be neutral, 2) interruptible imports is an ambiguous term; however interruptible transactions are already addressed in R3 and R4, and 3) like Tacoma, where a market expresses a need there is historical evidence suggesting that a market will meet those needs.

Organization	Yes or No	question 4 Comment
Bonneville Power Administration	No	
Salt River Project	No	
PacifiCorp	No	While PacifiCorp does not believe the proposed standard would pose a serious and subsantial burden on existing competitive markets, we do believe that it may lead to the creation of a new market product.
Response: The Drafting Team concurs and appreciates your observation.		
NorthWestern Corporation	No	
Xcel Energy		
Tacoma Power	Yes	As Tacoma Power has stated above, this proposed new WECC standard shifts the contingency reserve obligation between the entities in WECC. Due to this shift, new or different relationships will have to be created. Cost causation principles will create

Organization	Yes or No	question 4 Comment
		new issues for the entities such that the entities that are responsible for providing the new contingency reserve obligations are truly held responsible. New contracts will have to be executed between these new entities and the balancing authorities, and there is no guarantee of agreement.
Response: The Drafting Team appreciates Tacoma's concern and notes that there is no single agreement on the market issue. A simple study cannot be performed that will conclude, without fail, that a market for the required services will be available. However, it is the nature of a bilateral market that when a product is needed, the market for that product often self-initiates. On point, PacifiCorp (see above) suggests in counter-point to Tacoma that the proposed standard may result in the creation of a new market and new market products. As such, waiting for a fully mature market to develop before the need is established may not be the best way to facilitate that market nor can it be the single catalyst to approving this standard since it is unlikely that a market will be created "just in case" this standard is approved. The Drafting Team concurs that as responsibilities shift, new agreements will have to be executed. To meet this need, and in response to an earlier comment from WECC members, the Drafting Team is requesting an extended Effective Date, in part, to allow for these new relationships to mature.		
Alberta Electric System Operator	No	
Powerex	No	
California ISO	No	Though the proposed standard may not pose a "serious and substantial" burden on competetive markets, the ISO feels that (1) the proposed recovery period is more burdensome than necessary and (2) more clarity should be provided as to allowed technology to meet operating reserve requirements as follows: 1. The ISO believes the last sentence in Measurements M1.1, M2 and M3 should be modified to indicate that the 60-minute recovery period begins when the DCS event is over, at the end of the allowed 15-minute recovery period. This would be consistent with what is allowed by the NERC BAL-002-0 Standards which specifically states that "The Contingency Reserve Restoration Period begins at the end of the Disturbance

Organization	Yes or No	question 4 Comment
		Recovery Period." The current wording "within 60 minutes of the event" is too vague and has been interpreted by the drafting team to mean "from the start of the event." This interpretation would mean that WECC entities have only 45 minutes after the recovery period to restore reserves which is only half of the 90 minutes Eastern entities would have. This seems overly burdensome and will continue to be an ever greater challenge as we increase the levels of intermittent renewables going forward.2. The proposed Requirement R2 in BAL-002-WECC-1 requires that at least half of the Contingency Reserve obligation be "Operating Reserve - Spinning", which is in the NERC Glossary of Terms. The problem is that the NERC definition of "Operating Reserve - Spinning" focuses on generation and demand response, which raises doubt as to whether a battery or other form of energy storage could be used. In keeping with the spirit that FERC has made clear that Reliability Standards should not dictate the type of technology used to meet a reserve requirement NERC should consider revising the definition of "Operating Reserve - Spinning" to ensure this is understood.

Response:

Issue #1: The proposed recovery period is more burdensome than necessary.

The Drafting Team appreciates your concern. Although a longer recovery period was suggested early on, FERC stated that unless the Drafting Team could produce substantial technical justification for the position, FERC would not agree to that inclusion. To date, the Drafting Team has not compiled what it believes to be sufficient technical justification to request a longer recovery period. Thus, it was not included in the proposed standard.

That said, the Drafting Team would point the CAISO to Bonneville Power Authority's (BPA) comment in WECC Posting 5 of this standard wherein BPA states that "BPA will submit a SAR for the same standard to extend the time period for reserve restoration consistent with the NERC standard, 15 minutes DCS recovery plus 90 minutes for reserve restoration for a total of 105 minutes after the contingency." Further, PPL in that same comment window suggested they would support that effort.

Organization	Yes or No	question 4 Comment
Although the Drafting Team is unable to address your concerns due to the instant lack of data, the Drafting Team believes the CAISO should join with BPA and PPL to pursue the matter in the standards development process. Issue #2: Adjust the Measures The Drafting Team would refer the CAISO to the below paragraph of FERC Order 740. "On remand, we direct WECC to develop a modification to the reserve restoration period or provide evidence demonstrating that extending the reserve restoration period to 90 minutes and adding a disturbance recovery period of 15 minutes would not increase the risk of a major disturbance in the Western Interconnection." FERC Order 740. P. 28. The above language indicates that the current application refers to 60 minutes from the time of the event – not 60 minutes following the recovery period. After repeated requests to the field, the Drafting Team has not yet been provided sufficient data to justify making the requested change. Although the Drafting Team does not opt to adopt your proposed language, the Drafting Team has made changes to Version 5 in an effort to clarify the matter. First, taking note that the language was contained within the measures and not the requirements, the Drafting Team was concerned that the measure added additional features not contemplated in the requirement. As such, the language was removed from the measure and moved to the requirement. This change was also made as a result of the NERC Quality Review of the proposed document. In Version 5, the affected language now reads as follows: "Except within the first sixty minutes following an event requiring the activation of Contingency Reserves…." That same sixty-minute period is now accurately reflected in both the requirement and the measure.		

Organization	Yes or No	question 4 Comment
Issue #3: Can a battery be used? The Drafting Team does not agree with the CAISO and believes technologies, such as batteries, both contemplated and not yet contemplated are included in the standard as potential resources – so long as the undefined resource can meet the response characteristics described in the standard. The language does not preclude any specific technology; rather, the language delineates how that technology must be respond. As to the use of the NERC term Operating Reserve – Spinning, the Drafting Team disagrees that the NERC term focuses on generation in that the term specifically includes "generation synchronized to the system" and "load fully removable from the system"; thus, load and generation. To meet the CAISO's concerns; R1, Part 1.2 states that Contingency Reserve can be comprised of "A resource, other than generation or load, that can provide energy or reduce energy consumption." This wide berth should accommodate new technologies both now conceived and conceievable in the future.		
Portland General Electric Company	Yes	PGE is concerned with the movement toward unnecessary changes to an approved reliability standard as proposed in BAL-002-WECC-1 that will not result in increased reliability. The changes made through BAL-002-WECC-1 go beyond the language clarity and consistency required by FERC in the 2007 Order (RR07-11) and seem to be driven more by the economic interests to shift contingency reserve responsibility (i.e. costs) from the generators to the loads rather than improving reliability. Changes to reliability standards should be driven by technical merit weighed against overall costs. The standards process should not be used as a lever to shift costs among members. o The current "Tier One" BAL-STD-002-0 reflects the longstanding WECC Minimum Operating Reliability Criteria (MORC) by breaking down required operating reserve into four components: regulating reserve, contingency reserve, reserve for on-demand obligations, and reserves for interruptible imports. However, the proposed BAL-002-WECC-1 narrows the scope to only contingency reserve, which raises the question of what happens to the other components. In the time since the

Organization	Yes or No	question 4 Comment
		initial comment period on BAL-002-WECC-1, WECC has retired the WECC MORC with some parts preserved as new “criteria”. However, the reserve requirements for interruptible schedules and on-demand rights/obligations were not preserved. The passage of the proposed BAL-002-WECC-1 and the retirement of the WECC MORC would remove any explicit reserve requirements for interruptible schedules and on-demand rights/obligations. The effect of this can only be a step down in the reliability of the interconnected system. o The clarification of "load responsibility" and e-tag 1.8 helped characterize the nature of the transactions. For the "sink" BA, it identified those imports that were "firm for the hour". The simplified calculation of contingency reserve in BAL-002-WECC-1 does NOT consider the responsibility of the BA to anticipate which imports might be interrupted in-hour, and therefore the quantity of additional reserves that need to be available. Under BAL-002-WECC-1 everyone will be forced to parse the energy codes to infer what energy is "firm for the hour". BAL-002-WECCC-1 should require continued use of the "load responsibility" feature in e-tag 1.8 to clearly identify those transactions that are not "firm for the hour". o Despite industry-voiced concerns over the difficulty of interpreting "load responsibility", BAL-002-WECC-1 is saddled with the term "interruptible load". Such poorly defined terms put the BA in a position to judge whether or not loads offered up by an LSE meet the contract requirements of being "interruptible". o BAL-002-WECC-1 is assuming a robust reserves market in the West. The West does not have a mature reserves market. This new standard will put additional burden on the load serving entities by forcing them to procure reserves, if available, from third parties in order to meet the new standard. PGE is concerned this requirement will increase demand for capacity across constrained transmission without any beneficial increase in reliability. o PGE is concerned that the proposed standard puts the responsibility to provide reserves in part on the Sink Balancing Authorities (BAs)/Load Serving Entities (LSEs), which are subject to an immature bilateral market for acquisition of said reserves. If Sink BAs / LSEs are not able to acquire the proposed reserve level, they could be forced to shed load to remain compliant with the proposed standard. There is a fundamental difference between

Organization	Yes or No	question 4 Comment
		the acquisition of reserves in an organized market compared to a bilateral market such as that prominent in the WECC region. In a bilaterally based market, because generators are not subject to must-run requirements and are not required to offer their generation into the market, Sink BAs /LSEs do not have assured access to spinning and non-spinning capacity. Therefore, reserve requirements are currently maintained by the generators in the majority of the WECC region. Generators are the only entities that have the assured ability, without shedding load, to respond to contingency events. The transfer of reserve obligation from generators to load is an unnecessary cost shift from the parties physically able to perform, to parties that must contract. Moreover, even if a contracting party is able to secure reserves, there would be no assurance that they could secure transmission on a system encumbered due to the requirements of the proposed standard. Simply put, the proposed BAL-002-WECC-01 shifts costs with no associated increase in reliability, and would potentially reduce reliability and increase transmission constraints in the WECC region.

Response:

Issue #1: Use of Process for Cost Shifting

The Drafting Team notes your concern that when changes are made to the reliability aspects of the grid via implementation of reliability standards, these changes do not come without cost. Further, the Drafting Team acknowledges that as standards are implemented, cost shifting often occurs giving way to the argument that the sole intent of the changes is financially motivated. Finally, the Drafting Team acknowledges that these facts are no mystery to the industry and the processes for development of standards hold the potential to be used for financial as opposed to reliability-related purposes.

The Drafting Team did consider the potential of cost shifting in a number of forums, largely in the early years of developing this standard. This Drafting Team and its predecessors concluded that an even split of the burden between generation and load was a reasonable approach, albeit, not the only possible approach.

Based on the evaluation of different alternatives to determine the allocation methodology, the Drafting Team determined that this methodology had the least negative effect on the greatest number of entities. The Drafting Team acknowledges

Organization	Yes or No	question 4 Comment
		that anytime there is a cost shift, some will incur greater costs, some will lower their costs, and some will remain revenue neutral. Support or opposition for the shift generally depends on which side of the equation one falls. For example, please see NV Energy's comment above stating their own entity's position on what constitutes a just split of costs. As to this specific standard, the Drafting Team does not claim to know all the differences between those entities dissuaded by the standard because it may harm their own profit and loss statements versus those in support of the standard because its higher criteria bolsters reliability. Rather, the Drafting Team has endeavored to meet both the mandates of Order 740 as well as the mandate to be responsive imposed by the Process for developing and Approving WECC Standards (Process). The Drafting Team is reluctant to meet one obligation without also meeting the other. Issue #2: The Standard's scope regarding "MORC" is Too Narrow The Drafting Team disagrees with your conclusion. R3 directly addresses the concept of interruptible schedules and R4 addresses the concept of on-demand energy. (Note: "Interruptible imports" remains an undefined term not uniformly used across the Western Interconnection.) Issue #3: Addressing Interruptible Imports / Using the "Load Responsibility" concept The standard is not designed to address how a Balancing Authority addresses market transactions (i.e., parsing of the energy codes). The standard as drafted does not preclude the continued use of the e-Tag system in any of its iterations. By contrast, the standard is designed to address Contingency Reserve obligations and Contingency Reserve transactions. Further, the standard requires that the seller of Contingency Reserves hold reserves to meet that obligation. The standard is designed to ensure that a Balancing Authority carries reserves sufficient to respond to any loss of resource to include loss of its own generation or loss of an import. Of note, the remand order did not take issue with the associated language as drafted. As to the use of the undefined term "interruptible load," the Drafting Team recognized that within WECC the colloquial use of the phrase is not always implemented in a standardized fashion. To address this concern the Drafting Team opted to use the defined term "Interruptible Load" contained in the NERC Glossary to avoid any misunderstanding. Issue #4: An immature Market may Preclude Compliance The immature market issue was already addressed above; please refer there.

Organization	Yes or No	question 4 Comment
The Drafting Team recognizes PGE's market concerns as well as the likelihood that costs and burdens may shift to meet the "3 and 3" proposal; some entities may experience a cost increase whereas some may experience a cost decrease. The choice of "3 and 3" was made in an effort to arrive at an equitable calculation of Contingency Reserve.		

5. Does the proposed regional reliability standard meet at least one of the following criteria?

- **The proposed standard has more specific criteria for the same requirements covered in a continent-wide standard**
- **The proposed standard has requirements that are not included in the corresponding continent-wide reliability standard**
- **The proposed regional difference is necessitated by a physical difference in the bulk power system.**

Summary Consideration: All respondents concurred that the proposed standard meets at least one of the NERC reliability criteria.

Organization	Yes or No	Question 4 Comment
Bonneville Power Administration	Yes	
Salt River Project	Yes	
PacifiCorp	Yes	

Organization	Yes or No	Question 4 Comment
NorthWestern Corporation	Yes	
Xcel Energy	Yes	
Tacoma Power	Yes	Tacoma Power believes that at least one of the criteria is met. However, that does not mean it is the right thing to do. We believe that this proposed new WECC standard has a significant shift in the contingency reserve obligation without any demonstrated benefits and no increased reliability. We urge you to not approve the proposed new WECC standard.Thank you for consideration of our comments.
Response: The Drafting Team appreciates your comment. The "3 and 3" spread will result in roughly the same amount of Contingency Reserves being carried as under the existing standard. By contrast to the existing standard, the proposed standard provides clarity as to the BAs' reserve requirement, and removes market transactions from the determination of the reserve requirement.		
Alberta Electric System Operator	Yes	
Powerex	Yes	
California ISO	Yes	
Portland General Electric Company	Yes	a. While the proposed standard has more specificity than the continent-wide standard, the proposed standard's increased specificity has not been proven to provide additional reliability or clarity than the existing regional reliability standard. b. The proposed standard does not include requirements that are not included in the corresponding continent-wide reliability standard that are not already contained within the existing regional reliability standard. c. The proposed standard does not consider the differences between the bulk of WECC's operational model (i.e., a bilateral path based model), and a centrally

Organization	Yes or No	Question 4 Comment
		managed flow based model. Ignoring the differences between the two models and implementing the proposed standard would impose cost shifting with the potential for a reduced level of reliability. The reduced liability would be due to reserve requirements being placed on entities that have no assured ability to respond to contingency events without shedding load.

Response:

Issue #1: The standard does not provide additional reliability

The Drafting Team appreciates your comment. The "3 and 3" spread will result in roughly the same amount of Contingency Reserves being carried as under the existing standard. By contrast to the existing standard, the proposed standard provides clarity as to the BAs' reserve requirement. The proposed standard calculates the reserve requirement independent of market transactions, and electrically places the reserves closer to the load to be served.

The proposed standard closes a gap contained in the existing standard in that, under the existing standard, there is not a requirement for renewable generation to be included in the calculation of the Contingency Reserve requirement. The existing standard requires Contingency Reserve based only on hydro and thermal generation; it does not include renewable. There is such a requirement in the proposed standard. The proposed standard, which requires inclusion of all types of generation in the calculation of the Contingency Reserve amount, enhances reliability over the existing standard. With the large amount of existing and proposed wind, PV, and other renewable, this is a substantial improvement in reliability.

Issue #2: There are no new requirements compared to the existing standard.

Please see comment above.

Issue #3: Immature bilateral contract market

Please see the Drafting Team's responses above regarding immature markets and shifting of costs.

6. Additional Comments Submitted

Summary Consideration:

The team thanks all respondents for their time and considered responses. For those seeking change to the standard beyond those contemplated in the current request, the team encourages full use of the standards development process.

The distribution of the "3 and 3" between load and generation is designed to equitably spread the reserve burden. Within the industry there is ample example that where a market need is expressed, a market will develop to meet that need.

Wherever appropriate, the team opted to use NERC defined terms, such as Interruptible Load as opposed to the undefined term "interruptible" often used within WECC but not uniformly implemented.

Organization	Yes or No	Additional Comments
Bonneville Power Administration	Yes	BPA is supportive of this standard. However, BPA does have the following comment with the standard, with the understanding that this is not going to be a change to the standard as submitted: BPA will submit a SAR for the same standard to extend the time period for reserve restoration consistent with the NERC standard, 15 minute DCS recovery plus 90 minutes for reserve restoration for a total of 105 minutes after the contingency. BPA does understand that this issue is not currently a part of the proposed changes due to insufficient documentation being submitted to FERC during the first iteration of this standard. Since this time, a large amount of documentation that justifies expanding the recovery period has been submitted to the drafting team. This documentation detailed why thermal issues with the transmission system are not an issue in WECC plus showed that there is almost nonexistent increase in risk to WECC with expanding the recovery period. Although BPA understands that it is not desired by WECC members to confront this issue with this iteration of the standard, BPA strongly

Organization	Yes or No	Additional Comments
		recommends that, if this standard is approved by FERC, WECC immediately reconvene the drafting team in order to correct this issue.
Response: The Drafting Team appreciates your support as well as your initiative and further notes the reiteration of your position as made in BAL-002-WECC-1, Posting 2 and again in Posting 5. The Drafting Team encourages full use of the standards development process and thanks BPA for acknowledging the confines under which the Drafting Team has labored.		
NorthWestern Corporation	No	NorthWestern Energy disagrees with the amount of Contingency Reserve equal to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation as specified in Requirement 1 of BAL-002-WECC-1. This amount of Contingency Reserve strays away from the current requirement of the sum of five percent of the load responsibility served by hydro and wind generation and seven percent of the load responsibility served by thermal generation. The sum of five and seven percent Contingency Reserve responsibility is a tried practice that has proven to allocate adequate Contingency Reserve to responsible entities in the Western interconnection. In addition, NorthWestern Energy recommends that Contingency Reserves and Operating Reserves be defined in the proposed BAL-004-WECC-1 standard. The use of these terms in the standard does not seem to be consistent with industry standards and it leads to confusion when the two terms and referenced and interchanged throughout the document.
Response: Issue #1: The amount strays from 5 hydro/wind and 7 thermal The “3 and 3” has already been approved by the WECC Operating Committee, and when reviewed by FERC in the Order 740 Remand Order, FERC did not challenge the allocation. The Drafting Team notes that the existing standard does not specifically require reserves to be carried for “wind.” By contrast, the proposed standard would require that reserves be carried for ‘all” generation. This would also include wind, PV, and “all” renewable generation. When studied by the Drafting Team, the 3 and 3 allocation resulted in an amount of Contingency Reserve essentially the		

Organization	Yes or No	Additional Comments
same as the “tried and true” 5 and 7. Issue #2: Contingency Reserves and Operating Reserves should be defined in BAL-004-WECC-1 – not here. The Drafting Team notes that it has no control over the BAL-004-WECC-1 standards development process. (Could this have been a typo?) The Drafting Team notes that the terms Operating Reserve – Spinning and Operating Reserve – Supplemental are currently NERC-defined terms, used in this standard, the definitions for which have been taken directly from the NERC Glossary without change. To avoid confusion as to the definitions, WECC will respond to FERC Order 740, at Paragraph 62, and request that the WECC Operating Committee retire the term “Spinning Reserve” from the WECC Glossary.		
Powerex		Powerex has indicated in its previous comments that WECC should continue the operating reserves requirements for interruptible imports, as specified in the current standard (BAL-STD-002-0 - Operating Reserves): WR1.a Minimum Operating Reserve. Each Balancing Authority shall maintain minimumOperating Reserve which is the sum of the following:...(iii) Additional reserve for interruptible imports. An amount of reserve, which canbe made effective within ten minutes, equal to interruptible imports. It is the opinion of Powerex that the above requirement should remain in place until such time that the issue of reserve requirements associated with interruptible imports is addressed in some way, either through another standard development process or a regional criteria that specifically identifies the operating reserves required for interruptible imports. Though the term “interruptible imports” has never been clearly defined by WECC or NERC, the language was placed in the standard to differentiate an interruptible energy product - a product that may be curtailed for ANY reason, including the lack of sufficient operating reserves to hold the schedule whole for the scheduling period, from a “Firm” energy product - a product served by sufficient generating resources that the energy would not be curtailed during the scheduling period, unless those resources were depleted as a result of an event that qualified as that for which Contingency Reserve could be deployed. Removing the requirement from the current

Organization	Yes or No	Additional Comments
		standard could lead to further confusion over the requirement for reserves associated with interruptible imports. Right now in WECC there exists an unacceptable lack of clarity with respect to regulation requirements associated with energy interchange scheduling, and arguably there is no clear, standardized means of communicating the type of energy product (i.e. Firm, interruptible, or Unit Contingent) associated with an exchange. Powerex acknowledges that the Operating Reserve (i.e. Contingency Reserve) standard alone cannot address these concerns, but we feel it is premature to eliminate the language until the concerns are addressed via some other regulatory requirement.

Response:

Removing the requirement to address interruptible power could lead to further confusion. It may be premature to eliminate the language until the concerns are addressed via some other regulatory requirement.

The Drafting Team notes that the Powerex hypothesis as to the intent of the language may not be accurate because the language was included in WECC's MORC document long before energy markets were deregulated.

As to the development of markets, the "5 and 7" Contingency Reserve concept was developed decades ago. In response, markets developed to match the need. It is anticipated that as the "3 and 3" is implemented, the market will respond accordingly.

As to clarity of "regulation" requirements, this standard does not address the Regulating Reserve portion of Operating Reserves. This issue is addressed under NERC's BAL-001 standard.

The proposed standard is not designed to address how a Balancing Authority addresses market transactions (i.e., parsing of the energy codes). The proposed standard does not preclude the continued use of the e-Tag system in any of its iterations.

By contrast, the proposed standard is designed to address Contingency Reserve obligations and Contingency Reserve transactions. Further, the proposed standard requires that the seller of Contingency Reserves hold reserves to meet that obligation. The standard is designed to ensure that a Balancing Authority carries reserves sufficient to respond to any loss of resource to include loss of its own generation or loss of an import. Of note, the remand order did not take issue with the

Organization	Yes or No	Additional Comments
associated language as drafted. As to the use of the undefined term “interruptible load,” the Drafting Team recognized that within WECC the colloquial use of the phrase is not always implemented in a standardized fashion. To address this concern the Drafting Team opted to use the defined term “Interruptible Load” contained in the NERC Glossary to avoid any misunderstanding. Finally, the Drafting Team believes the current methodology cited by Powerex does not add any clarity nor does it have universal agreement as to its implementation; rather, the existing language is the source of the ambiguity. The Drafting Team encourages Powerex to initiate a SAR to facilitate addressing Powerex’ concerns.		

END OF REPORT

Exhibit D

Standard Drafting Team Roster

Team Member Biographies
BAL-002-WECC-2
Contingency Reserve
Exhibit D

Below please find a biographical snapshot for the members of the WECC-0083 BAL-002-WECC-2 Contingency Reserve Drafting Team.

Ali Amirali	Inactive
Bart McManus	Mr. McManus received his BSEE degree from the University of Washington and has been at Bonneville Power Authority (BPA) since 1994. Mr. McManus was the lead programmer for the Automatic Generation Control (AGC) system for multiple years, before becoming the lead for AGC and other Balancing Authority Area Operations at BPA. Mr. McManus began working on wind integration issues in 2006, and now serves as the wind integration lead for BPA Transmission Operations.
Ben Williams	Mr. Williams works for Utility System Efficiencies as its senior power systems engineer, performing consulting work related to electric transmission planning, operations, and protection. Previously, Mr. Williams was employed at Pacific Gas and Electric Company as a transmission planning engineer and supervising power system engineer in the operations department. Mr. Williams is a member of WECC's Operating Committee, and was previously a member of WECC's Minimum Operating Reliability Criteria Work Group. Mr. Williams received a B.S. degree in electrical engineering from Washington State University in 1996, an MBA from Saint Mary's College in 2007, and is a registered professional engineer in California.
Brenda Anderson	Ms. Anderson has been employed by BPA since 1989. She has served in positions in scheduling, planning, and marketing prior to the separation of the merchant and transmission functions. Since the separation, Ms. Anderson has been an energy trader and policy expert on the BPA Trading Floor. She has a broad understanding of West Coast markets, standards, contracts and transmission systems. Since 1997, Ms. Anderson has been BPA's representative and a very active member of the Western System Power Pool Agreement (WSPP). BPA also assigned Ms. Anderson to represent BPA at the WECC, NERC, and North American Energy Standards Board (NAESB). She is a voting member in all three.

Clyde Loutan	Inactive
David Frederick	Mr. Frederick is the administrator of the Southwest Reserve Sharing Group and an employee of Salt River Project, where he has worked since 1999. He has worked in merchant and reliability departments as a cost/plant/power production analyst. Mr. Frederick is a NERC-certified dispatcher in balancing, interchange, and transmission operations; and holds a B.S. degree in accountancy.
David Lemmons, Chair	Mr. Lemmons began his career in the electric industry with Southwestern Public Service Company (SPS) in Amarillo, Texas, in 1989. He spent eight years in the rates and regulation department where he performed rate of return analyses, designed rates and worked with other regulatory issues. In 1997, Mr. Lemmons transferred to the energy trading department during the merger between SPS and Public Service Company of Colorado (PSCo). In this capacity, with Xcel Energy and its predecessor, New Century Energies, he analyzed the electric system loads and resources for day-ahead and real-time operations and trading — working with generation and fuel procurement to ensure resources were ready and available to serve loads. In his current position as senior manager of market operations, Mr. Lemmons represents Xcel Energy at electric reliability, RTO development and system operation meetings throughout the United States, as well as providing support for state and Federal regulatory proceedings. Mr. Lemmons chairs the WECC-0083 BAL-002-WECC-2 Standard Drafting Team, the NERC Project 2007-12 Standard Drafting team and is a team member on the NERC Project 2010-14.1 Standard Drafting Team. He holds a Master of Science degree in finance and economics from West Texas A&M University.
Duane Helderlein	Mr. Helderlein, business development manager, Tri-State Generation and Transmission Association, Inc., has more than 20 years of electric utility experience (12 years with Tri-State), six years in environmental compliance and regulatory permitting, and 14 years in wholesale electricity marketing and operations. Mr. Helderlein has spent over eight years in a managerial role that involved real-time marketing, scheduling and generation dispatch; as well as prescheduling and marketing daily and short-term wholesale electricity and natural gas commodities. He has a B.S. in chemistry and an M.B.A.
Gregory Van Pelt	Mr. Van Pelt is the external affairs manager for the California Independent System Operator (CAISO). The CAISO is a nonprofit corporation chartered by the State of California to ensure the reliability of the state's electric transmission system, and to facilitate an open-access

	market to the Bulk Electric System in California. Mr. Van Pelt has 40 years of involvement in power system operations, and was part of the original start-up staff at the CAISO. Prior to his current assignment, his responsibilities included real-time operations, operations training, outage management, regional coordination and compliance; as well as developing and coordinating emergency response actions. Before coming to the CAISO, Mr. Van Pelt spent over 25 years with the Southern California Edison Company where his responsibilities were primarily in electric system operations and emergency management.
John Marusenko	Mr. Marusenko is a registered professional engineer in British Columbia. Mr. Marusenko has 18 years of engineering experience leading up to his current position as system control manager for BC Hydro's control center. Mr. Marusenko represents BC Hydro on several WECC work groups/standard drafting teams, and is the BC Hydro subject matter expert for the NERC Transmission Operation standards.
John Tolo	Mr. Tolo is currently employed by Tucson Electric Power as director, system control and reliability, and has been in the utility business for 26 years. Mr. Tolo has held positions in power production and distribution, transmission, and generation operations. He has memberships in the NERC Resources Subcommittee, the WECC Performance Work Group, serves as vice chair of the WECC Operating Committee, chair of the WECC Joint Guidance Committee, and is a member of the BAL-004-WECC-01 and WECC-0068 drafting teams.
Justin Lee	Mr. Lee holds a B.S. degree in electrical engineering from Arizona State University. Mr. Lee has seven years experience in transmission operations.
Phil Tice	Mr. Tice, manager wholesale contracts and regulations at Deseret Power Electric Cooperative, Inc., has more than 40 years of electric utility experience (20 years with Deseret). Mr. Tice held engineering and supervisory positions with utilities for 24 years in plant design, operation and maintenance. Mr. Tice has been engaged in wholesale electricity marketing and associated Federal regulations for the past 16 years. Mr. Tice is a past chair of the WECC Market Interface Committee, as well as Deseret's voting representative on the WECC Operating Committee. Education: B.S. in mechanical engineering from Indiana Institute of Technology in 1970. Mr. Tice is a registered professional engineer licensed by the State of Pennsylvania.
Robert Johnson	Mr. Johnson is administrator, Rocky Mountain Reserve Group (RMRG), and senior operations engineer for Public Service Company of

	Colorado (PSCo). He manages the generation reserve coordination, compliance monitoring and reporting, software development, and training; and is involved in all aspects of administering the RMRG, which has10 members covering Colorado and Wyoming. As senior engineer for PSCo, Mr. Johnson prepares advanced operational analysis to address operational issues and concerns covering a broad spectrum. He is a voting member of the WECC Operations Committee, Colorado Coordinated; the planning group, WECC Operating Procedures Review Group; the Foothills Planning Group; and the Rocky Mountain Operations Study Group. Previously, Mr. Johnson has served on the NERC Compliance and Certification Committee, WECC Operating Capability Studies Group, and the NERC Standards Compliance Task Force. Over the course of his career, Mr. Johnson has written a number of technical papers for the Institute of Electrical and Electronics Engineers(IEEE) and Council on Large Electric Systems (CIGRE). He was manager and supervisor in resource and transmission planning at the Western Area Power Administration in Golden and Loveland, Colo. He also managed the operational, resource and transmission planning group for Western's RMR Region in Colorado, Wyoming, and portions of Utah, New Mexico, Nebraska, and Montana. In a separate position, supervised planning engineers evaluating projects for all of Western's Regions. Mr. Johnson served on the NERC Planning Committee and on numerous WECC technical committees. He also chaired the WECC Technical Studies Subcommittee, the WECC Operating Capability Study Group, and was secretary of the WECC Planning Coordination Committee. Beforehand, he power system engineer for the Bureau of Reclamation and Western Area Power.
Steven Johnson	Mr. Johnson is the reliability/balancing manager for the Western Area Colorado Missouri (WACM) and Western Area Lower Colorado (WALC) BAs. He has been in the power industry since 1996. His career began with Hetch Hetchy Water and Power in Northern California as a power generation technician. In 2000, Mr. Johnson joined the Western Area Power Administration in Loveland, Colo. While with Western, Mr. Johnson has held various positions including transmission scheduling

	and security dispatcher, reliability coordinator, and reliability/balancing supervisor. Mr. Johnson also spent some time with WECC as a reliability coordinator technical lead from 2006-2007.

Exhibit E

BAL-002-WECC-2 Violation Severity Level and

Violation Risk Factor Analysis

Violation Risk Factor and Violation Severity Level Justification
BAL-002-WECC-2
Contingency Reserve
Exhibit E

Violation Risk Factor (VRF)

BAL-002-WECC-1 was reviewed by NERC and FERC, resulting in a remand to WECC under FERC Order 740.[1] The order did not require changes to the Violation Risk Factors; however, upon review, the drafting team opted to assign each of the Requirements a High VRF.

The WECC-0083 Contingency Reserve Drafting Team used the definitions for VRFs[2] to determine the VRF for each requirement. Based upon the definitions, the drafting team assigned a High VRF for all Requirements, because, if violated, these requirements could directly cause or contribute to Bulk Electric System (BES) instability, separation, or a cascading sequence of failures, or could place the BES at an unacceptable risk of instability, separation, or cascading failures.

Violation Severity Level (VSL)

FERC Order 740 did not require changes to the VSLs of BAL-002-WECC-1; however, as part of the NERC Quality Review of the standard, non-substantive changes were accepted as was the addition of an "or" statement in the VSL for Requirement R4. The new VSL table is appended to this Attachment.

In preparing the VSLs for BAL-002-WECC-2, the drafting team used the guidelines provided in the NERC Violation Severity Level Guidelines (Guidelines). The VSLs as proposed:

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[1] FERC Remand Order 740, UNITED STATES OF AMERICA, FEDERAL ENERGY REGULATORY COMMISSION, 18 CFR Part 40, Docket No. RM09-15-000; Order No. 740, Version One Regional Reliability Standard for Resource and Demand Balancing, Issued October 21, 2010 (herein after Order 740).

[2] http://www.nerc.com/files/Violation_Risk_Factors.pdf

- specify the responsible entity
- are drafted in the past tense
- describe the specific noncompliant performance
- apply the same VSL to the main body of the Requirement as well as each of the sub-requirements or “Parts”
- are structured in the preferred four-part Lower-to-Severe style
- are based on a specific occurrence as opposed to a cumulative number of violations
- describe an increasing degree of non-performance as occurring in percentage increments (For example, a Lower VSL in Requirement R1 occurs when reserves are “less than 100% but greater than or equal to 90%.”)
- do not represent any “pass or fail” performance; thus, the binary application of a Severe VSL is not applicable
- do not decrease as compared to the previous filing

When developing the VSLs based on the percentage increments, the team concluded that applying the same percentage to each responsible entity imposed a comparable burden on each entity due to the comparable size and business structures of the responsible entities.

(See the attached compliance table for details.)

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.
R2	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 100% but greater than or equal to 90% of the required Operating Reserve– Spinning amount	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 90% but greater than or equal to 80% of the required Operating Reserve–	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 80% but greater than or equal to 70% of the required Operating Reserve–	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 70% of the required Operating Reserve– Spinning amount

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			specified in Requirement R2, and both characteristics were met.	Spinning amount specified in Requirement R2, and both characteristics were met.	Spinning amount specified in Requirement R2, and both characteristics were met.	specified in Requirement R2, and both characteristics were met.
R3	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R3.
R4	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 100% but greater than or equal to 90% of the required Operating	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 90% but greater than or equal to 80% of the required Operating	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 80% but greater than or equal to 70% of the required Operating	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 70% of the required Operating Reserve amount

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			Reserve amount specified in Requirement R4.	Reserve amount specified in Requirement R4.	Reserve amount specified in Requirement R4.	specified in Requirement R4.

Exhibit F

Implementation Plan for the Proposed Standard

Implementation Plan
BAL-002-WECC-2
Contingency Reserve
Exhibit F

Standards Authorization Request

http://www.wecc.biz/Standards/Development/Lists/Request%20Form/DispForm.aspx?ID=83&Source=/Standards/Development

Approvals Required

BAL-002-WECC-2
Contingency Reserve

Prerequisite Approvals

On May 18, 2012, the WECC Ballot Pool approved the standard during the April 2, 2012, through May 18, 2012, ballot window. Results of that ballot can be found here. A summary of those results follows.

Ballot Name:	BAL-002-WECC-2 Modification to BAL-002-WECC-1 Contingency Reserve
Ballot Period:	4/2/2012 - 5/18/2012
Total # Votes:	158
Total Ballot Pool:	174
Quorum:	90.8%
Weighted Sector Vote:	80.6%
Ballot Results:	The standard has passed

On May 21, 2012, the WECC Standards Committee approved forwarding the standard to the WECC Board of Directors. A summary of that approval follows.

Name	Organization	Sector	Yes	No	Abstain	A vote was not cast
Angela Small	NAES	2 Generation	X			
Crystal	Proven	8 Other Non-	X			

Musselman	Compliance Solutions	Registered Entities				
Dana Cabbell	Southern California Edison	1 Transmission	X			
Gregory Maxfield	PacifiCorp	3 Marketers and Brokers				X
Jerry Murray	Oregon Public Utility Commission	7 State and Provincial Representatives				X
John Meyer	Non-Affiliate Director / WSC Chair	Board	X			
Joseph Tarantino	Sacramento Municipal Utility District	5 System Coordination	X			
Glen Hoisington	FEUS	4 Distribution				X
Rick Noger	Praxair	6 End User Representative Sector			X	

On June 26, 2012, the WECC Board of Directors approved the standard during the WECC June 2012 Board meeting. The WECC Board of Directors voting summary can be found here.

Applicable Entities

Balancing Authority
Reserve Sharing Group

Conforming Changes to Other Standards

None required as BAL-002-WECC-2 is designed to modify BAL-002-WECC-1 in accordance with FERC Order 740, and to replace BAL-STD-002-0 upon the Effective Date of BAL-002-WECC-2.

Effective Date

On the first day of the third quarter, after receipt of applicable regulatory approval.

Justification of Effective Date

BAL-002-WECC-2 may require execution of contracts by some entities before implementation can occur. In response to comments and requests from the field, the drafting team opted for the above Effective Date as a means to allow applicable entities to finalize needed contracts.

Consideration of Early Compliance

BAL-002-WECC-2 predominately addresses the types and amounts of Contingency Reserve required of the applicable entities, based upon three percent of load and three percent of generation. Should the applicable entities opt for early compliance, there is no empirical evidence suggesting a decrease in reliability as the amount of Contingency Reserve required under the proposed standard approximates the amount of Contingency Reserve already being maintained.

Retirements

BAL-002-WECC-2 is designed to modify BAL-002-WECC-1 in accordance with FERC Order 740, and to replace BAL-STD-002-0 upon the Effective Date of BAL-002-WECC-2.

Exhibit H

BAL-002-WECC-2 Redline to WECC BAL-STD-002-0 and

BAL-002-WECC-2 Redline to BAL-002-WECC-1

~~WECC Standard BAL-STD-002-0 – Operating Reserves – Attachment B2~~

A. ~~A.~~ Introduction

1. ~~1.~~ **Title:** ~~Operating Reserves~~ **Contingency Reserve**

2. ~~2.~~ **Number:** BAL-~~STD~~-002-~~0~~WECC-2

3. ~~3.~~ **Purpose:** ~~Regional Reliability Standard to address~~To specify the ~~Operating~~quantity and types of Contingency Reserve ~~requirements of the Western Interconnection~~required to ensure reliability under normal and abnormal conditions.

4. ~~4.~~ **Applicability:**

4.1 ~~4.1.1 This criterion applies to each Responsible Entity that is (i) a~~ Balancing Authority ~~or a~~

4.1.1. The Balancing Authority is the responsible entity unless the Balancing Authority is a member of a Reserve Sharing Group ~~that does not designate its~~, in which case, the Reserve Sharing Group ~~as its agent, or (ii) a~~ becomes the responsible entity.

4.2 Reserve Sharing Group. ~~A Responsible Entity that is a Balancing Authority and a member of a~~

4.2.1. The Reserve Sharing Group ~~is subject to this criterion only as described in Section A.4.1.2. A Responsible Entity that is a member of a~~when comprised of a Source Balancing Authority becomes the source Reserve Sharing Group ~~is not subject to this criterion on an individual basis~~.

4.~~1~~.2 ~~Responsible Entities that are members of a~~**.2.** The Reserve Sharing Group ~~may designate in writing to WECC a Responsible Entity to act as agent for purposes of this criterion for each such~~when comprised of a Sink Balancing Authority becomes the sink Reserve Sharing Group. ~~Such~~

5. **Effective Date:** On the first day of the third quarter following applicable regulatory approval.

B. Requirements and Measures

R1. Each Balancing Authority and each Reserve Sharing Group ~~agents~~ shall ~~be responsible for all data submission requirements under Section D~~maintain a minimum amount of Contingency Reserve, except within the first sixty minutes following an event requiring the activation of ~~this Reliability Agreement. Unless a~~Contingency Reserve, that is: *[Violation Risk Factor: High] [Time*

Horizon: Real-time operations]

1.1 The greater of either:

- The amount of Contingency Reserve equal to the loss of the most severe single contingency;
- The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation.

1.2 Comprised of any combination of the reserve types specified below:

- Operating Reserve – Spinning
- Operating Reserve - Supplemental
- Interchange Transactions designated by the Source Balancing Authority as Operating Reserve – Supplemental
- Reserve held by other entities by agreement that is deliverable on Firm Transmission Service
- A resource, other than generation or load, that can provide energy or reduce energy consumption
- Load, including demand response resources, Demand-Side Management resources, Direct Control Load Management, Interruptible Load or Interruptible Demand, or any other Load made available for curtailment by the Balancing Authority or the Reserve Sharing Group ~~agent~~ via contract or agreement.
- All other load, not identified above, once the Reliability Coordinator has declared an energy emergency alert signifying that firm load interruption is imminent or in progress.

1.3 Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Opinion 464).

1.4 An amount of capacity from a resource that is deployable within ten minutes.

M1. Each Balancing Authority and each Reserve Sharing Group will have documentation demonstrating its Contingency Reserve was maintained, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Part 1.1

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates its Contingency Reserve was maintained in accordance with the amounts identified in Requirement R1, Part 1.1, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Attachment A is a practical illustration showing how the generation amount may be calculated under Requirement R1.

- Where Dynamic Schedules are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1 may include, but is not limited to, documentation showing a reciprocal acknowledgement as to which entity is carrying the reserves. This transfer may be all or some portion of the physical generator and is not limited to the entire physical capability of the generator.

- Where Pseudo-Ties are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1, may include, but is not limited to, documentation accounting for the transfers included in the Pseudo-Ties.

Part 1.2

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.2. Evidence may include, but is not limited to, documentation that reserves were comprised of the types listed in Requirement R1, Part 1.2 for purposes of meeting the Contingency Reserve obligation of Requirement R1. Additionally, for purposes of the last bullet of Requirement R1, Part 1.2, evidence of compliance may include, but is not limited to, documentation that the reliability coordinator had issued an energy emergency alert, indicating that firm Load interruption was imminent or was in progress.

Part 1.3

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.3. Evidence of compliance with Requirement R1, Part 1.3 may include, but is not limited to, documentation that Contingency Reserve amounts are based upon load and generating data averaged over each Clock Hour and excludes Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Opinion 464.

Part 1.4

Evidence of compliance with Requirement R1, Part 1.4 may include, but is not limited to, documentation that the reserves maintained to comply with Requirement R1, Part 1.4 are fully deployable within ten minutes.

R2. Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

2.1 Reserve that is immediately and automatically responsive to frequency deviations through the action of a governor or other control system;

2.2 Reserve that is capable of fully responding within ten minutes.

M2. Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates it maintained at least half of the Contingency Reserve identified in Requirement R1 as Operating Reserve – Spinning, averaged over each Clock Hour, that met both of the reserve characteristics identified in Requirement R2, Part 2.1 and Requirement R2, Part 2.2.

R3. Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M3. Each Sink Balancing Authority and each sink Reserve Sharing Group will have dated documentation demonstrating it maintained an amount of Operating Reserve, in addition to the Contingency Reserve identified in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, for the entire period of the transaction, except within the first sixty minutes following an event requiring the activation of Contingency Reserves, in accordance with Requirement 3.

R4. Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M4. Each Source Balancing Authority and each source Reserve Sharing Group will have dated documentation that demonstrates it maintained an amount of additional Operating Reserves identified in Requirement R1, greater than or equal to the amount and type of that identified in Requirement 4, for the entire period of the transaction.

C. Compliance

1. Compliance Monitoring Process

1.1 Compliance Enforcement Authority

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

For responsible entities that are also Regional Entities, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

1.2 Compliance Monitoring and Assessment Processes:

Compliance Audit

Self-Certification

Spot Checking

Compliance Investigation

Self-Reporting

Complaint

1.3 Evidence 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.

Each Balancing Authority and each Reserve Sharing Group shall keep evidence for Requirement R1 through R4 for three years plus calendar current.

1.4. Additional Compliance Information

1.4.1. This Standard shall apply to each Balancing Authority and each Reserve Sharing Group that has registered with WECC as provided in Part 1.4.2 of Section C.

Each Balancing Authority identified in the registration with WECC as provided in Part 1.4.2 of Section C 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: 1) indicating that the

Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, 2) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and 3) 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 Part 1.4.2 of Section C identifies individual ~~Responsible Entities~~Balancing Authorities within the Reserve Sharing Group responsible for noncompliance at the time of data submission, ~~sanctions~~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: 1) 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, 2) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection 1) of this Part 1.4.3 of Section C, and 3) 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 1) of this Part 1.4.3 of Section C (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).

1.4.4. If an agent properly designated in accordance with Part 1.4.2 of Section C 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. ~~If a Responsible Entity that is a member of a Reserve Sharing Group does not designate in writing to WECC a Responsible Entity to act as agent for purposes of this criterion for each such Reserve Sharing Group, such Responsible Entity shall be subject to this criterion on an individual basis.~~

~~**5. Effective Date:** This Western Electricity Coordinating Council Regional Reliability Standard will be effective when approved by the Federal Energy Regulatory Commission under Section 215 of the Federal Power Act. This Regional Reliability Standard shall be in effect for one year from the date of Commission approval or until a North American Standard or a revised Western Electricity Coordinating Council Regional Reliability Standard goes into place, whichever occurs first. At no time shall~~

this regional Standard be enforced in addition to a similar North American Standard.

B. Requirements

WR1.

The reliable operation of the interconnected power system requires that adequate generating capacity 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:

- supply requirements for load variations.
- replace generating capacity and energy lost due to forced outages of generation or transmission equipment.
- meet on-demand obligations.

~~! replace energy lost due to curtailment of interruptible imports.~~

~~a. Minimum Operating Reserve. Each~~**4.5.** Any Balancing Authority ~~shall maintain minimum~~ ~~Operating Reserve which~~ that is ~~the sum~~a member of ~~the following:~~

~~(i) Regulating reserve. Sufficient Spinning Reserve, immediately responsive to Automatic Generation Control (AGC) to provide sufficient regulating margin to allow the Balancing Authority to meet NERC's Control Performance Criteria (see BAL-001-0).~~

~~(ii) Contingency reserve. An amount of Spinning Reserve and Nonspinning Reserve (at least half of which must be Spinning Reserve), sufficient to meet the NERC Disturbance Control Standard BAL-002-0, equal to the greater of:~~

~~(a) The loss of generating capacity due to forced outages of generation or transmission equipment that would result from the most severe single contingency; or~~

~~(b) The sum of five percent of the load responsibility served by hydro generation and seven percent of the load responsibility served by thermal generation.~~

~~The combined unit ramp rate of each Balancing Authority's on-line, unloaded generating capacity must be capable of responding to the Spinning Reserve requirement of that Balancing Authority within ten minutes~~

~~(iii) Additional reserve for interruptible imports. An amount of reserve, which can be made effective within ten minutes, equal to interruptible imports.~~

~~(iv) Additional reserve for on-demand obligations. An amount of reserve, which can be made effective within ten minutes, equal to on-demand obligations to other entities or Balancing Authorities.~~

~~b. Acceptable types of Nonspinning Reserve. The Nonspinning Reserve obligations identified in subsections~~ a~~(ii), a(iii), and a(iv), if any, can be met by use of the following:~~

~~(i) interruptible load;~~

~~(ii) interruptible exports;~~

~~(iii) on-demand rights from other entities or Balancing Authorities;~~

~~(iv) Spinning Reserve in excess of requirements in subsections a(i) and a(ii); or~~

~~(v) off-line generation which qualifies as Nonspinning Reserve.~~

~~c. Knowledge of Operating Reserve. Operating Reserves shall be~~

~~calculated such that the amount available which can be fully activated in the next ten minutes will be known at all times.~~

d. Restoration of Operating Reserve. After the occurrence of any event necessitating the use of Operating Reserve, that reserve shall be restored as promptly as practicable. The time taken to restore reserves shall not exceed 60 minutes (Source: WECC Criterion)

C. Measures

WM1.

Except within the first 60 minutes following an event requiring the activation of Operating Reserves, a Responsible Entity identified in Section A.4 must maintain 100% of required Operating Reserve levels based upon data averaged over each clock hour. Following every event requiring the activation of Operating Reserves, a Responsible Entity identified in Section A.4 must re-establish the required Operating Reserve levels within 60 minutes. (Source: Compliance Standard)

D. Compliance

1. Compliance Monitoring Process

1.1 Compliance Monitoring Responsibility

Western Electricity Coordinating Council (WECC)

1.2 Compliance Monitoring Period

At Occurrence and Quarterly

By no later than 5:00 p.m. Mountain Time on the first Business Day following the day on which an instance of non-compliance occurs (or such other date specified in Form A.1(a)), the Responsible Entities identified in SectionA.4 shall submit to the WECC office Operating Reserve data in Form A.1(a) (available on the WECC web site) for each such instance of non-compliance. On or before the tenth day of each calendar quarter (or such other date specified in Form A.1(b)), the Responsible Entities identified in Section A.4 (including Responsible Entities with no reported instances of non-compliance) shall submit to the WECC office a completed Operating Reserve summary compliance Form A.1(b) (available on the WECC web site) for the immediately preceding calendar quarter.

1.3 Data Retention

Data will be retained in electronic form for at least one year. The retention period will be evaluated before expiration of one year to determine if a longer retention period is necessary. If the data is being reviewed to address a question of compliance, the data will be saved beyond the normal retention period until the question is formally resolved. (Source: NERC Language)

1.4. Additional Compliance Information

For purposes of applying the sanctions specified in Sanction Table for violations of this criterion, the "Sanction Measure" is Average Generation and the "Specified Period" is the most recent calendar month.(Source: Sanctions)

2. Levels of Non-Compliance

Sanction Measure: Average Generation

2.1. Level 1: There shall be a Level 1 non-compliance if any of the following conditions exist:

2.1.1 One instance during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Operating Reserve is less than Group that has failed to register as provided in Part 1.4.2 of Section C shall be subject to this Standard on an individual basis.

100% but greater than or equal to 90% of the required Operating Reserve.

2.2. Level 2: There shall be a Level 2 non-compliance if any of the following conditions exist:

2.2.1 One instance during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Operating Reserve is less than
90% but greater than or equal to 80% of the required Operating Reserve.

2.3. Level 3: There shall be a Level 3 non-compliance if any of the following conditions exist:

2.3.1 One instance during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Operating Reserve is less than
80% but greater than or equal to 70% of the required Operating Reserve.

2.4. Level 4: There shall be a Level 4 non-compliance if any of the following conditions exist:

2.4.1 One instance during a calendar month in which the Balancing Authority's or the Reserve Sharing Group's Operating Reserve is less than 70% of
the required Operating Reserve.

E. Regional Differences

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

Table of Compliance Elements

Version	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.
R2	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 100% but greater than or equal to 90% of the required Operating Reserve–Spinning amount specified in	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 90% but greater than or equal to 80% of the required Operating Reserve–Spinning	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 80% but greater than or equal to 70% of the required Operating Reserve–Spinning	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 70% of the required Operating Reserve–Spinning amount specified in

~~Version~~ R	~~Date~~ Time Horizon	~~Action~~ VRF	~~Change Tracking~~ Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			Requirement R2, and both characteristics were met.	amount specified in Requirement R2, and both characteristics were met.	amount specified in Requirement R2, and both characteristics were met.	Requirement R2, and both characteristics were met.
R3	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R3.
R4	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R4.

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Version R	Date Time Horizon	Action V RF	Change Tracking Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
				R4.	R4.	

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Sanction Table

Sanctions for non-compliance with respect to each criterion in Section B Requirements shall be assessed pursuant to the following table. All monetary sanctions shall also include sending of Letter (B).

	Number of Occurrences at a Given Level within Specified Period			
Level of Non-compliance	1	2	3	4 or more
Level 1	Letter (A)	Letter (B)	Higher of $1,000 or $1 per MW of Sanction Measure	Higher of $2,000 or $2 per MW of Sanction Measure
Level 2	Letter (B)	Higher of $1,000 or $1 per MW of Sanction Measure	Higher of $2,000 or $2 per MW of Sanction Measure	Higher of $4,000 or $4 per MW of Sanction Measure
Level 3	Higher of $1,000 or $1 per MW of Sanction Measure	Higher of $2,000 or $2 per MW of Sanction Measure	Higher of $4,000 or $4 per MW of Sanction Measure	Higher of $6,000 or $6 per MW of Sanction Measure
Level 4	Higher of $2,000 or $2 per MW of Sanction Measure	Higher of $4,000 or $4 per MW of Sanction Measure	Higher of $6,000 or $6 per MW of Sanction Measure	Higher of $10,000 or $10 per MW of Sanction Measure

Letter (A): Letter to Responsible Entity's Chief Executive Officer informing the Responsible Entity of noncompliance with copies to NERC, WECC Member Representative, and WECC Operating Committee Representative[1].

Letter (B): Identical to Letter (A), with additional copies to (i) Chairman of the Board of Responsible Entity (if different from Chief Executive Officer), and to (ii) state or provincial regulatory agencies with jurisdiction over Responsible Entity, and, in the case of U.S. entities, FERC, and Department of Energy, if such government entities request such information.

The "Specified Period" and the "Sanction Measure" are as specified in Section D1.4 for each criterion.

Sanctions shall be assessed for all instances of non-compliance within a Specified Period. For example, if a Responsible Entity had two instances of Level 1 non-compliance and

[1] Copies of Letter A and Letter B will be sent to WECC Member Representative and WECC Operating Committee Representative when the Generator Operator is a WECC member.

one instance of Level 3 non-compliance for a specific criterion in the first Specified Period, it would be assessed the sanction from Column 2 of the Level 1 row, and the sanction from Column 1 of the Level 3 row.

If the Responsible Entity fails to comply with a given criterion for two or more consecutive Specified Periods, the sanctions assessed at each level of noncompliance for the most recent Specified Period shall be the sanction specified in the column immediately to the right of the indicated sanction. For example, if a Responsible Entity fails to comply with a given criterion for two consecutive Specified Periods, and in the second Specified Period the Responsible Entity has one instance of Level 1 non-compliance and two instances of Level 3 non-compliance, it would be assessed the sanction from Column 2 of the Level 1 row, and the sanction from Column 3 of the Level 3 row. If the sanction assessed at the highest level is the sanction in Column 4, no such modification of the specified sanction shall occur.

DEFINITIONS

Unless the context requires otherwise, all capitalized terms shall have the meanings assigned in this Standard and as set out below:

Area Control Error or **ACE** means the instantaneous difference between net actual and scheduled interchange, taking into account the effects of Frequency Bias including correction for meter error.

Automatic Generation Control or **AGC** means equipment that automatically adjusts a Control Area's generation from a central location to maintain its interchange schedule plus Frequency Bias.

Average Generation means the total MWh generated within the Balancing Authority Operator's Balancing Authority Area during the prior year divided by 8760 hours (8784 hours if the prior year had 366 days).

Business Day means any day other than Saturday, Sunday, or a legal public holiday as designated in section 6103 of title 5, U.S. Code.

Disturbance means (i) any perturbation to the electric system, or (ii) the unexpected change in ACE that is caused by the sudden loss of generation or interruption of load.

Extraordinary Contingency shall have the meaning set out in Excuse of Performance, section B.4.c.

Frequency Bias means a value, usually given in megawatts per 0.1 Hertz, associated with a Control Area that relates the difference between scheduled and actual frequency to the amount of generation required to correct the difference.

Nonspinning Reserve means that Operating Reserve not connected to the system but capable of serving demand within a specified time, or interruptible load that can be removed from the system in a specified time.

Operating Reserve means that capability above firm system demand required to provide for regulation, load forecasting error, equipment forced and scheduled outages and local area protection. Operating Reserve consists of Spinning Reserve and Nonspinning Reserve.

Spinning Reserve means unloaded generation which is synchronized and ready to serve additional demand. It consists of Regulating reserve and Contingency reserve (as each are described in Sections B.a.i and ii).

EXCUSE OF PERFORMANCE

A. Excused Non-Compliance

Non-compliance with any of the reliability criteria contained in this Standard shall be excused and no sanction applied if such non-compliance results directly from one or more of the actions or events listed below.

B. Specific Excuses

1. Governmental Order

The Reliability Entity's compliance with or action under any applicable law or regulation or other legal obligation related thereto or any curtailment, order, regulation or restriction imposed by any governmental authority (other than the Reliability Entity, if the Reliability Entity is a municipal corporation or a federal, state, or provincial governmental entity or subdivision thereof).

2. Order of Reliability Coordinator

The Reliability Entity's compliance or reasonable effort to comply with any instruction, directive, order or suggested action ("Security Order") by the WECC Reliability Coordinator for the WECC sub-region within which the Reliability Entity is operating, provided that the need for such Security Order was not due to the Reliability Entity's non-compliance with (a) the WECC Reliability Criteria for Transmission System Planning, (b) the WECC Power Supply

Design Criteria, (c) the WECC Minimum Operating Reliability Criteria, or (d) any other WECC reliability criterion, policy or procedure then in effect (collectively, "WECC Reliability Standards"), and provided further that the Reliability Entity in complying or attempting to comply with such Security Order has taken all reasonable measures to minimize Reliability Entity's non-compliance with the reliability criteria.

3. Protection of Facilities

Any action taken or not taken by the Reliability Entity which, in the reasonable judgment of the Reliability Entity, was necessary to protect the operation, performance, integrity, reliability or stability of the Reliability Entity's computer system, electric system (including transmission and generating facilities), or any electric system with which the Reliability Entity's electric system is interconnected, whether such action occurs automatically or manually; provided that the need for such action or inaction was not due to Reliability Entity's non-compliance with any WECC Reliability Standard and provided further that Reliability Entity could not have avoided the need for such action or inaction through reasonable efforts taken in a timely manner. Reasonable efforts shall include shedding load, disconnecting facilities, altering generation patterns or schedules on the transmission system, or purchasing energy or capacity, except to the extent that the Reliability Entity demonstrates to the WECC Staff and/or the RCC that in the particular circumstances such action would have been unreasonable.

4. Extraordinary Contingency

a. Any Extraordinary Contingency (as defined in subsection c); provided that this provision shall apply only to the extent and for the duration that the Extraordinary Contingency actually and reasonably prevented the Reliability Entity from complying with any applicable reliability criteria; and provided further that Reliability Entity took all reasonable efforts in a timely manner to mitigate the effects of the Extraordinary Contingency and to resume full compliance with all applicable reliability criteria contained in this Reliability Agreement. Reasonable efforts shall include shedding load, disconnecting facilities, altering generation patterns or schedules on the transmission system, or purchasing energy or capacity, except to the extent that the Reliability Entity

~~demonstrates to the WECC Staff and/or the RCC that in the particular circumstances such action would have been unreasonable. Reasonable efforts shall not include the settlement of any strike, lockout or labor dispute.~~

~~**b.** Any Reliability Entity whose compliance is prevented by an Extraordinary Contingency shall immediately notify the WECC of such contingency and shall report daily or at such other interval prescribed by the WECC the efforts being undertaken to mitigate the effects of such contingency and to bring the Reliability Entity back into full compliance.~~

~~**c.** An Extraordinary Contingency means any act of God, actions by a non-affiliated third party, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, earthquake, explosion, accident to or breakage,~~
~~failure or malfunction of machinery or equipment, or any other cause beyond the Reliability Entity's reasonable control; provided that prudent industry standards (e.g., maintenance, design, operation) have been employed; and provided further that no act or cause shall be considered an Extraordinary Contingency if such act or cause results in any contingency contemplated in any WECC Reliability Standard (e.g., the "Most Severe Single Contingency" as defined in the WECC Reliability Criteria or any lesser contingency).~~

~~**5. Participation in Field Testing**~~

~~Any action taken or not taken by the Reliability Entity in conjunction with the Reliability Entity's involvement in the field testing (as approved by either the WECC Operating Committee or the WECC Planning Coordination Committee) of a new reliability criterion or a revision to an existing reliability criterion where such action or non-action causes the Reliability Entity's non-compliance with the reliability criterion to be replaced or revised by the criterion being field tested; provided that Reliability Entity's non- compliance is the result of Reliability Entity's reasonable efforts to participate in the field testing.~~

~~Page 9 of 9~~**D. Regional Variances**
None.

E. Interpretations
None.

F. Associated Documents
None.

Attachment A

Attachment A is illustrative only; it is not a requirement. Requirement R1 calls for an amount of Contingency Reserve to be maintained, predicated on an amount of generation and load required in Requirement R1, Part 1.1., specifically:

> **"1.1** The greater of either:
>
> - The amount of Contingency Reserve equal to the loss of the most severe single contingency;
> - The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation."

Attachment A illustrates one possible way to account for and calculate the amount of generation upon which the Contingency Reserve amount is predicated.

Below is a practical illustration showing how the generation amount may be calculated under Requirement R1 for Balancing Authorities (BA) and Reserve Sharing Groups (RSG).

BA1 / RSG 1	**Generation**	**Part of Generator**
Generator 1	300 MWs online	Yes
Generator 2	200 MWs online	Yes
Generator 3 (Pseudo-Tied out to BA2)	100 MWs online	No
Generator 4 QF (has backup contract)	10 MWs online	No
Generator 5 QF in EMS	10 MWs online	Yes
Generator 6	0 MWs online	Yes
Dynamic Schedule to BA2 from BA1[1]	(50 MWs)	
Generation	620 MWs	(The sum of gen 1-6)
BA generation (EMS)	510 MWs	(The sum of gen 1, 2, and 5)
Generation to use Under BAL-002-WECC-1	460 MWs**	(The sum of gen 1, 2 and 5 minus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would maintain reserves based on 510 MWs Generation.

BA2 / RSG2	**Generation**	**Part of Generator**
Generator 11	100 MWs	Yes

[1] Note: This Dynamic Schedule is not the same as the Generator 3 Pseudo-Tie.

Generator 12	100 MWs	Yes
Generator 3 (Pseudo-Tied in from BA1)	100 MWs	Yes
Dynamic Schedule from BA1 to BA2	50 MWs	Yes
Generation	300 MWs	(The sum of gen 11, 12 and 3.)
BA generation (EMS)	300 MWs	(The sum of gen 11, 12 and 3)
Generation to use Under BAL-002-WECC-1	350 MWs**	(The sum of gen 11, 12 and 3 plus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would have to maintain reserves based on 510MWs Generation and BA2 would determine its generation to be 300 MWs.

BAL-002-WECC-2 Redline to BAL-002-WECC-1

~~WECC Standard BAL-002-WECC-1 – Contingency Reserves~~ **Attachment C**

A. ~~A.~~ Introduction

~~1.~~

1. Title: **Contingency ~~Reserves~~Reserve**

2. ~~2.~~ Number: BAL-002-WECC-2

~~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.~~

3. ~~4.~~ Purpose: To specify the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions.

4. Applicability:

4.1 ~~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~~**1.1.** The Balancing Authority ~~that is not~~ is the responsible entity unless the Balancing Authority is a member of a Reserve Sharing Group, in which case, the Reserve Sharing Group becomes the responsible entity.

4.2 Reserve Sharing Group

4.2.1. The Reserve Sharing Group when comprised of a Source Balancing Authority becomes the source Reserve Sharing Group.

4.2.2. The Reserve Sharing Group when comprised of a Sink Balancing Authority becomes the sink Reserve Sharing Group.

5. Effective Date: On the first day of the third quarter following applicable regulatory approval.

B. Requirements and Measures

R1. Each Balancing Authority and each Reserve Sharing Group shall maintain ~~as~~ a minimum amount of Contingency Reserve~~-~~, except within the first sixty minutes following an event requiring the activation of Contingency Reserve, that is ~~the~~

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~~sum of the following~~: *[Violation Risk Factor: ~~Medium~~High] [Time Horizon: Real-time ~~Operations~~operations]*

~~R1.~~1.1 The greater of ~~the following:~~either:

~~R1.1.1.~~ ~~An~~

- The amount of ~~reserve~~Contingency Reserve equal to the loss of the most severe single contingency; ~~or~~

- **~~R1.1.2.~~** ~~An~~The amount of ~~reserve~~Contingency Reserve equal to the sum of three percent of ~~the load (generation minus station service minus Net Actual Interchange) and~~ hourly integrated Load plus three percent of ~~net~~hourly integrated 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 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~~

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~~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.**~~**1.2** Comprised of any combination of the reserve types specified below:

- Operating Reserve – Spinning
- Operating Reserve - Supplemental
- Interchange Transactions designated by the ~~source~~Source Balancing Authority as ~~non-spinning contingency reserve;~~Operating Reserve – Supplemental

~~**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~~A resource, other than generation or load, that can provide energy or reduce energy consumption
- Load, including demand response resources, Demand-Side Management resources, Direct Control Load Management, Interruptible Load or Interruptible ~~Load~~Demand, or any other Load made available for curtailment by the Balancing Authority or the Reserve Sharing Group via contract or agreement.
- All other load, not identified above, once the Reliability Coordinator has declared ~~a capacity or~~ an energy emergency~~:~~ alert signifying that firm load interruption is imminent or in progress.

~~**C. Measures**~~

1.3 Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Order 464).

1.4 An amount of capacity from a resource that is deployable within ten minutes.

M1. ~~The~~ Each Balancing Authority and each Reserve Sharing Group ~~or~~will have

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documentation demonstrating its Contingency Reserve was maintained, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Part 1.1

Each Balancing Authority ~~that is not a member of a~~and each Reserve Sharing Group ~~has~~will have dated documentation that demonstrates its Contingency Reserve was maintained in accordance with the amounts identified in Requirement R1, Part 1.1, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Attachment A is a practical illustration showing how the generation amount may be calculated under Requirement R1.

- Where Dynamic Schedules are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1 may include, but is not limited to, documentation showing a reciprocal acknowledgement as to which entity is carrying the reserves. This transfer may be all or some portion of the physical generator and is not limited to the entire physical capability of the generator.

- Where Pseudo-Ties are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1, may include, but is not limited to, documentation accounting for the transfers included in the Pseudo-Ties.

Part 1.2

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.2. Evidence may include, but is not limited to, documentation that reserves were comprised of the types listed in Requirement R1, Part 1.2 for purposes of meeting the Contingency Reserve obligation of Requirement R1. Additionally, for purposes of the last bullet of Requirement R1, Part 1.2, evidence of compliance may include, but is not limited to, documentation that the reliability coordinator had issued an energy emergency alert, indicating that firm Load interruption was imminent or was in progress.

Part 1.3

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.3. Evidence of compliance with Requirement R1, Part 1.3 may include, but is not limited to, documentation that Contingency Reserve amounts are based upon load and generating data averaged over each Clock Hour and excludes Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Order 464.

Part 1.4

Evidence of compliance with Requirement R1, Part 1.4 may include, but is not

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limited to, documentation that the reserves maintained to comply with Requirement R1, Part 1.4 are fully deployable within ten minutes.

R2. Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

2.1 Reserve that is immediately and automatically responsive to frequency deviations through the action of a governor or other control system;

2.2 Reserve that is capable of fully responding within ten minutes.

M2. Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates it maintained ~~100% of required Contingency Reserve levels based upon data integrated over each clock hour except within the first~~at least half of the Contingency Reserve identified in Requirement R1 as Operating Reserve – Spinning, averaged over each Clock Hour, that met both of the reserve characteristics identified in Requirement R2, Part 2.1 and Requirement R2, Part 2.2.

~~105 minutes (15 minute Disturbance Recovery Period, plus 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~~

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~~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.**~~

R3. Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M3. Each Sink Balancing Authority and each sink Reserve Sharing Group will have dated documentation demonstrating it maintained an amount of Operating Reserve, in addition to the Contingency Reserve identified in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, for the entire period of the transaction, except within the first sixty minutes following an event requiring the activation of Contingency Reserves, in accordance with Requirement 3.

R4. Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M4. Each Source Balancing Authority and each source Reserve Sharing Group will have dated documentation that demonstrates it maintained an amount of additional Operating Reserves identified in Requirement R1, greater than or equal to the amount and type of that identified in Requirement 4, for the entire period of the transaction.

C. Compliance

1. ~~Compliance~~ Monitoring Process

~~1.1 Compliance Monitoring Responsibility~~

1.1 Compliance Enforcement Authority

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For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

For responsible entities that are also Regional Entities, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

1.2 Compliance Monitoring ~~Period~~and Assessment Processes:

~~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 Audit

Self-Certification

Spot Checking

Compliance ~~Enforcement Authority~~Investigation

~~- Investigations~~

~~- Other methods as provided for in the Compliance Monitoring Enforcement Program~~

~~Reserve Sharing Groups and~~ Self-Reporting

Complaint

1.3 Evidence 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.

Each 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~~ Authority and each ~~calendar quarter.~~

~~**1.2.1** Compliance Monitoring Period: One Clock Hour.~~

~~**1.2.2** The Performance-reset Period is calendar quarter.~~

~~**1.3 Data Retention**~~

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Reserve Sharing ~~Groups and Balancing Authorities~~Group shall keep evidence for ~~Measure M.1~~Requirement R1 through ~~M3~~R4 for three years plus calendar current~~, or since the last audit, whichever is longer~~.

1.4. Additional Compliance Information

1.4.1. This Standard shall apply to ~~a~~each Balancing Authority and each Reserve Sharing Group that has registered with ~~the~~ WECC as provided in Part 1.4.2 of Section ~~1.4.2, and each~~C.

Each Balancing Authority identified in the registration with WECC as provided in Part 1.4.2 of Section C shall be responsible for compliance with this

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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~~: 1) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, ~~(b~~2) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and ~~(c~~3) 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 Part 1.4.2 of Section ~~1.4.2~~C 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~~: 1) 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~~2) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection ~~(a~~1) of this Part 1.4.3 of Section ~~1.4.3~~C, and ~~(c~~3) 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~~1) of this Part 1.4.3 of Section ~~1.4.3~~C (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).

1.4.4. If an agent properly designated in accordance with Part 1.4.2 of Section ~~1.4.2~~C 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 Part 1.4.2 of Section ~~1.4.2~~C shall be subject to this Standard on an individual basis.

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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.

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

~~**WECC Standard BAL-002-WECC-1 — Contingency Reserves**~~

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Table of Compliance Elements

~~Version~~	~~Date~~Time Horizon	~~Action~~VRF	~~Change Tracking~~Violation Severity Levels			
~~1~~	~~April 16, 2008~~	~~Permanent Replacement Standard for BAL-STD-002-0~~	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.
R2	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock	The Balancing Authority or the Reserve Sharing Group that incurs one	The Balancing Authority or the Reserve Sharing Group that incurs one	The Balancing Authority or the Reserve Sharing Group that incurs one

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~~Version~~	~~Date~~	~~Action~~	~~Change Tracking~~			
~~1~~	~~April 16, 2008~~	~~Permanent Replacement Standard for BAL-STD-002-0~~	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 100% but greater than or equal to 90% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 90% but greater than or equal to 80% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 80% but greater than or equal to 70% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 70% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.
R3	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 100% but	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 90% but	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 80% but	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 70% of the

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~~Version~~	~~Date~~	~~Action~~	~~Change Tracking~~	Violation Severity Levels		
~~1~~	~~April 16, 2008~~	~~Permanent Replacement Standard for BAL-STD-002-0~~	Lower VSL	Moderate VSL	High VSL	Severe VSL
			greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R3.	greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R3.	greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R3.	required Operating Reserve amount specified in Requirement R3.
R4	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R4.

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D. Regional Variances

None.

E. Interpretations

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None.

F. Associated Documents

None.

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Attachment A

Attachment A is illustrative only; it is not a requirement. Requirement R1 calls for an amount of Contingency Reserve to be maintained, predicated on an amount of generation and load required in Requirement R1, Part 1.1., specifically:

"1.1 The greater of either:

- The amount of Contingency Reserve equal to the loss of the most severe single contingency;
- The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation."

Attachment A illustrates one possible way to account for and calculate the amount of generation upon which the Contingency Reserve amount is predicated.

Below is a practical illustration showing how the generation amount may be calculated under Requirement R1 for Balancing Authorities (BA) and Reserve Sharing Groups (RSG).

BA1 / RSG 1	**Generation**	**Part of Generator**
Generator 1	300 MWs online	Yes
Generator 2	200 MWs online	Yes
Generator 3 (Pseudo-Tied out to BA2)	100 MWs online	No
Generator 4 QF (has backup contract)	10 MWs online	No
Generator 5 QF in EMS	10 MWs online	Yes
Generator 6	0 MWs online	Yes
Dynamic Schedule to BA2 from BA1[1]	(50 MWs)	
Generation	620 MWs	(The sum of gen 1-6)
BA generation (EMS)	510 MWs	(The sum of gen 1, 2, and 5)
Generation to use Under BAL-002-WECC-1	460 MWs**	(The sum of gen 1, 2 and 5 minus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would maintain reserves based on 510 MWs Generation.

BA2 / RSG2	**Generation**	**Part of Generator**
Generator 11	100 MWs	Yes

[1] Note: This Dynamic Schedule is not the same as the Generator 3 Pseudo-Tie.

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Generator 12	100 MWs	Yes
Generator 3 (Pseudo-Tied in from BA1)	100 MWs	Yes
Dynamic Schedule from BA1 to BA2	50 MWs	Yes
Generation	300 MWs	(The sum of gen 11, 12 and 3.)
BA generation (EMS)	300 MWs	(The sum of gen 11, 12 and 3)
Generation to use Under BAL-002-WECC-1	350 MWs**	(The sum of gen 11, 12 and 3 plus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would have to maintain reserves based on 510MWs Generation and BA2 would determine its generation to be 300 MWs.

Guideline and Technical Basis

A Guidance Document addressing implementation of this standard has been filed with this standard.

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Exhibit I

Complete Development Record of Proposed BAL-002-WECC-2
Contingency Reserve Regional Reliability Standard

Regional Reliability Standards - Under Development				
Standard No.	**Title**	**Regional Status**	**Dates**	**NERC Status**
Western Electricity Coordinating Council (WECC)				
BAL-002-WECC-2	Contingency Reserves (Order 740 Remand)	NERC Board Adopted November 7, 2012	01/06/12 - 02/20/12	Info **(1)** Submit Comments Comment Form **(2)** BAL-002-WECC-2 (clean) **(3)** BAL-002-WECC-2 (redlined) **(4)** Implementation Plan **(5)** Comments Received **(6)** Consideration of Comments **(7)**

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Regional Reliability Standards Announcement

Comment Period Open for BAL-002-WECC-1
January 6 – February 20, 2012

Regional Project: Now available

Proposed Standard for the Western Electricity Coordinating Council (WECC)
WECC has requested NERC to post regional reliability standard BAL-002-WECC-1 Contingency Reserves for a 45-day industry review as permitted by the NERC Rules of Procedure.

Instructions
Please use this electronic form to submit comments. If you experience any difficulties in using the electronic form, please contact Monica Benson at monica.benson@nerc.net. An off-line, unofficial copy of the comment form is posted on the regional standards development page.

Background
On March 26, 2007, NERC submitted WECC-BAL-STD-002-0 to FERC for approval. The purpose of standard was to convert the substance of WECC's Reliability Criteria Agreement, III.A.2. WECC Criterion into an enforceable standard.

On June 8, 2007, FERC approved WECC-BAL-STD-002-0 — subject to specific requested changes — finding the standard was more stringent than the corresponding NERC Reliability Standard BAL-002-0. Specifically, FERC found that WECC's requirement to restore Contingency Reserve within 60 minutes was more stringent than the 90-minute restoration period as set forth in NERC's BAL-002-0.

After making the FERC mandated changes, on March 25, 2009, NERC submitted BAL-002-WECC-1 (nomenclature change) to FERC for approval and requested retirement of WECC BAL-STD-002-0. On October 21, 2010, FERC remanded BAL-002-WECC-1 to NERC under FERC Final Order 740 with instruction for WECC to further development the standard. This standard is the result of the aforementioned proceedings.

Regional Reliability Standards Development Process
Section 300 of the *Rules of Procedure for the Electric Reliability Organization* governs the regional reliability standards development process. The success of the NERC standards development process depends on stakeholder participation. We extend our thanks to all those who participate.

For more information or assistance, please contact Monica Benson, Standards Process Administrator, at monica.benson@nerc.net or at 404-446-2560.

North American Electric Reliability Corporation
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Princeton, NJ 08540
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Unofficial Comment Form for Regional Reliability Standard BAL-002-WECC-1

Please **DO NOT** use this form. Please use the electronic form to submit comments on the Regional Reliability Standard **BAL-002-WECC-1.** Comments must be submitted by **February 20, 2012.** If you have questions please contact Howard Gugel at howard.gugel@nerc.net or Barb Nutter at barbara.nutter@nerc.net

http://www.nerc.com/filez/regional_standards/regional_reliability_standards_under_development.html

Background Information

A regional reliability standard shall be: (1) a regional reliability standard that is more stringent than the continent-wide reliability standard, including a regional standard that addresses matters that the continent-wide reliability standard does not; or (2) a regional reliability standard that is necessitated by a physical difference in the bulk power system. Regional reliability standards shall provide for as much uniformity as possible with reliability standards across the interconnected bulk power system of the North American continent. Regional reliability standards, when approved by FERC and applicable authorities in Mexico and Canada shall be made part of the body of NERC reliability standards and shall be enforced upon all applicable bulk power system owners, operators, and users within the applicable area, regardless of membership in the region.

BAL-002-WECC-1 specifies the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions.

Each **WECC** Regional Reliability Standard shall enable or support one or more of the NERC reliability principles, thereby ensuring that each standard serves a purpose in support of the reliability of the regional bulk electric system. Each of those standards shall also be consistent with all of the NERC reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence. The NERC reliability principles supported by this standard are the following:

> **Reliability Principle 1 -** Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards.
>
> **Reliability Principle 3** - Information necessary for the planning and operation of interconnected bulk power systems shall be made available to those entities responsible for planning and operating the systems reliably.

The proposed **WECC** Regional Reliability Standard is not inconsistent with, or less stringent than established NERC Reliability Standards. Once approved by the appropriate authorities, the **WECC** Regional Reliability Standard obligates the **WECC** to monitor and enforce compliance, apply sanctions, if any, consistent with any regional agreements and the NERC rules.

The **BAL-002-WECC-1** standard contains four main requirements for applicable entities within the **WECC** geographic area. The standard contains the following:

Requirement 1 - Each Balancing Authority and each Reserve Sharing Group shall maintain a minimum amount of Contingency Reserve, except within the first sixty minutes following an event requiring the activation of Contingency Reserve, that is:

Requirement 2 - Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics.

Requirement 3 - Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Requirement 4 - Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group.

The approval process for a regional reliability standard requires NERC to publicly notice and request comment on the proposed standard. Comments shall be permitted only on the following criteria (technical aspects of the standard are vetted through the regional standards development process):

> **Unfair or Closed Process —** The regional reliability standard was not developed in a fair and open process that provided an opportunity for all interested parties to participate. Although a NERC-approved regional reliability standards development procedure shall be presumed to be fair and open, objections could be raised regarding the implementation of the procedure.
>
> **Adverse Reliability or Commercial Impact on Other Interconnections —** The regional reliability standard would have a significant adverse impact on reliability or commerce in other interconnections.
>
> **Deficient Standard —** The regional reliability standard fails to provide a level of reliability of the bulk power system such that the regional reliability standard would be likely to cause a serious and substantial threat to public health, safety, welfare, or national security.
>
> **Adverse Impact on Competitive Markets within the Interconnection —** The regional reliability standard would create a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability.

1. **Do you agree the proposed standard is being developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure?**

   ☐ Yes
   ☐ No

   Comments:

2. **Does the proposed standard pose an adverse impact to reliability or commerce in a neighboring region or interconnection?**

   ☐ Yes
   ☐ No

   Comments:

3. **Does the proposed standard pose a serious and substantial threat to public health, safety, welfare, or national security?**

   ☐ Yes
   ☐ No

   Comments:

4. **Does the proposed standard pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability?**

   ☐ Yes
   ☐ No

   Comments:

5. **Does the proposed regional reliability standard meet at least one of the following criteria?**

   - **The proposed standard has more specific criteria for the same requirements covered in a continent-wide standard**
   - **The proposed standard has requirements that are not included in the corresponding continent-wide reliability standard**
   - **The proposed regional difference is necessitated by a physical difference in the bulk power system.**

   ☐ Yes
   ☐ No

   Comments:

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 approved proposed standard	March 6, 2008
7. Post Draft Standard for WECC Board approval	March 12, 2008
8. Post Draft Standard for NERC comment period	April 14, 2008
9. WECC Board approved proposed standard	April 16, 2008
10. NERC comment period ended	May 20, 2008
11. Drafting Team completes review and consideration of NERC industry comments	May 30, 2008
12. NERC Board approved the request; Request FERC approval	June 2008
13. FERC Remanded under Order 740, 18 CFR Part 40, Docket No. RM09-15-000.	October 21, 2010
14. Drafting Team first meeting	January 10, 2011
15. Posting 1	January 17, 2011
16. Posting 1 Responses to Comments	March 21, 2011
17. Posting 2 Posted	March 11, 2011
18. Posting 2 Responses to Comments	April 14, 2011
19. Operating Committee Special Vote – Failed	May 19, 2011
20. Posting 3	September 19, 2011
21. Posting 3 Responses to Comments	November 15, 2011
22. Posting 4	November 15, 2011
23. Technical Conference / Salt Lake City, UT	December 5, 2011
24. Team finalizes Version 4 Responses to Comments and Version 5 for posting	January 4, 2012
25. Posting 4 Responses to Comments	January 4, 2012

26. Posting 5 at WECC for 30 days	January 5, 2012
27. Posting 5 at NERC for 45 days	January 6, 2012
28. Posting 5 WECC closes	February 6, 2012
29. Posting 5 NERC closes	February 20, 2012
30. Posting 5 Responses posted	February 23, 2012
31. Team approved forwarding the standard to the Operating Committee for approval. At the onset of the Reliability Standards Development Procedures, effective March 1, 2012, this document was forwarded through the Ballot Pool, the WECC Standards Committee and the WECC Board of Directors for approval.	February 23, 2012
32. Notice to OC for March agenda	February 24, 2012
33. Reliability Standards Development Procedures became effective changing the process for development	March 1, 2012
34. Operating Committee discussion	March 27, 2012
35. Ballot Pool approved	May 18, 2012
36. WECC Standards Committee approved forwarding to the WECC Board of Directors for approval	May 21, 2012
37. WECC Board of Directors approved	June 26, 2012

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

Version	Date	Action	Change Tracking
1	January 17, 2011	Draft Version of Permanent Replacement Standard for BAL-STD-002-0	Version 1 posted 1/17/2011 through 3/3/2011
1	March 11, 2011	"Purpose" adjusted, reserve restoration window adjusted, calculation moved to the Measures	Version 2 posted 3/11-2011 through 4/11/2011
1	September 19, 2011	Post-OC rejection	Version 3 posted 9/19/2011 through 10/19/2011
1	November 15, 2011	Structure changed for clarity, added Applicable Entities earlier omitted	Version 4 posted 11/15/2011 through 12/15/2011
1	January 5, 2012	Structure changed for clarity, added Applicable Entities earlier omitted, responded to technical conference, comments and NERC quality review	Version 5 posted 1/5/2012 through 2/6/2012

A. Introduction

1. **Title:** **Contingency Reserve**

2. **Number:** BAL-002-WECC-2

3. **Purpose:** To specify the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions.

4. **Applicability:**

   4.1 Balancing Authority

   4.1.1. The Balancing Authority is the responsible entity unless the Balancing Authority is a member of a Reserve Sharing Group, in which case, the Reserve Sharing Group becomes the responsible entity.

   4.2 Reserve Sharing Group

   4.2.1. The Reserve Sharing Group when comprised of a Source Balancing Authority becomes the source Reserve Sharing Group.

   4.2.2. The Reserve Sharing Group when comprised of a Sink Balancing Authority becomes the sink Reserve Sharing Group.

5. **Effective Date:** On the first day of the third quarter following applicable regulatory approval.

B. Requirements and Measures

R1. Each Balancing Authority and each Reserve Sharing Group shall maintain a minimum amount of Contingency Reserve, except within the first sixty minutes following an event requiring the activation of Contingency Reserve, that is: [*Violation Risk Factor: High] [Time Horizon: Real-time operations]*

1.1 The greater of either:

- The amount of Contingency Reserve equal to the loss of the most severe single contingency;
- The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation.

1.2 Comprised of any combination of the reserve types specified below:

- Operating Reserve – Spinning
- Operating Reserve - Supplemental
- Interchange Transactions designated by the Source Balancing Authority as Operating Reserve – Supplemental
- Reserve held by other entities by agreement that is deliverable on Firm Transmission Service
- A resource, other than generation or load, that can provide energy or reduce energy consumption
- Load, including demand response resources, Demand-Side Management resources, Direct Control Load Management, Interruptible Load or Interruptible Demand, or any other Load made available for curtailment by the Balancing Authority or the Reserve Sharing Group via contract or agreement.
- All other load, not identified above, once the Reliability Coordinator has declared an energy emergency alert signifying that firm load interruption is imminent or in progress.

1.3 Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Order 464).

1.4 An amount of capacity from a resource that is deployable within ten minutes.

M1. Each Balancing Authority and each Reserve Sharing Group will have documentation demonstrating its Contingency Reserve was maintained, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Part 1.1

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates its Contingency Reserve was maintained in accordance with the amounts identified in Requirement R1, Part 1.1, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Attachment A is a practical illustration showing how the generation amount may be calculated under Requirement R1.

- Where Dynamic Schedules are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1 may include, but is not limited to, documentation showing a reciprocal acknowledgement as to which entity is carrying the reserves. This transfer may be all or some portion of the

physical generator and is not limited to the entire physical capability of the generator.

- Where Pseudo-Ties are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1, may include, but is not limited to, documentation accounting for the transfers included in the Pseudo-Ties.

Part 1.2

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.2. Evidence may include, but is not limited to, documentation that reserves were comprised of the types listed in Requirement R1, Part 1.2 for purposes of meeting the Contingency Reserve obligation of Requirement R1. Additionally, for purposes of the last bullet of Requirement R1, Part 1.2, evidence of compliance may include, but is not limited to, documentation that the reliability coordinator had issued an energy emergency alert, indicating that firm Load interruption was imminent or was in progress.

Part 1.3

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.3. Evidence of compliance with Requirement R1, Part 1.3 may include, but is not limited to, documentation that Contingency Reserve amounts are based upon load and generating data averaged over each Clock Hour and excludes Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Order 464.

Part 1.4

Evidence of compliance with Requirement R1, Part 1.4 may include, but is not limited to, documentation that the reserves maintained to comply with Requirement R1, Part 1.4 are fully deployable within ten minutes.

R2. Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

2.1 Reserve that is immediately and automatically responsive to frequency deviations through the action of a governor or other control system;

2.2 Reserve that is capable of fully responding within ten minutes.

M2. Each Balancing Authority and each Reserve Sharing Group will have dated

documentation that demonstrates it maintained at least half of the Contingency Reserve identified in Requirement R1 as Operating Reserve – Spinning, averaged over each Clock Hour, that met both of the reserve characteristics identified in Requirement R2, Part 2.1 and Requirement R2, Part 2.2.

R3. Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M3. Each Sink Balancing Authority and each sink Reserve Sharing Group will have dated documentation demonstrating it maintained an amount of Operating Reserve, in addition to the Contingency Reserve identified in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, for the entire period of the transaction, except within the first sixty minutes following an event requiring the activation of Contingency Reserves, in accordance with Requirement 3.

R4. Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M4. Each Source Balancing Authority and each source Reserve Sharing Group will have dated documentation that demonstrates it maintained an amount of additional Operating Reserves identified in Requirement R1, greater than or equal to the amount and type of that identified in Requirement 4, for the entire period of the transaction.

C. Compliance

1. Compliance Monitoring Process

1.1 Compliance Enforcement Authority

For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

For responsible entities that are also Regional Entities, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

1.2 Compliance Monitoring and Assessment Processes:

Compliance Audit

Self-Certification

Spot Checking

Compliance Investigation

Self-Reporting

Complaint

1.3 Evidence 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.

Each Balancing Authority and each Reserve Sharing Group shall keep evidence for Requirement R1 through R4 for three years plus calendar current.

1.4. Additional Compliance Information

1.4.1. This Standard shall apply to each Balancing Authority and each Reserve Sharing Group that has registered with WECC as provided in Part 1.4.2 of Section C.

Each Balancing Authority identified in the registration with WECC as provided in Part 1.4.2 of Section C 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: 1) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, 2) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and 3) 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 Part 1.4.2 of Section C 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: 1) 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, 2) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection 1) of this Part 1.4.3 of Section C, and 3) 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 1) of this Part 1.4.3 of Section C (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).

1.4.4. If an agent properly designated in accordance with Part 1.4.2 of Section C 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 Part 1.4.2 of Section C shall be subject to this Standard on an individual basis.

Table of Compliance Elements

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.
R2	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 100% but greater than or	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 90% but	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 80% but	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 70% of the

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			equal to 90% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	greater than or equal to 80% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	greater than or equal to 70% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.
R3	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R3.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R3.
R4	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency

R	Time Horizon	VRF	Violation Severity Levels			
			Lower VSL	Moderate VSL	High VSL	Severe VSL
			Reserve Operating Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R4.	Reserve Operating Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R4.	Reserve Operating Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R4.	Reserve Operating Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R4.

D. Regional Variances
None.

E. Interpretations
None.

F. Associated Documents
None.

Attachment A

Attachment A is illustrative only; it is not a requirement. Requirement R1 calls for an amount of Contingency Reserve to be maintained, predicated on an amount of generation and load required in Requirement R1, Part 1.1., specifically:

> **"1.1** The greater of either:
>
> - The amount of Contingency Reserve equal to the loss of the most severe single contingency;
> - The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation."

Attachment A illustrates one possible way to account for and calculate the amount of generation upon which the Contingency Reserve amount is predicated.

Below is a practical illustration showing how the generation amount may be calculated under Requirement R1 for Balancing Authorities (BA) and Reserve Sharing Groups (RSG).

BA1 / RSG 1	**Generation**	**Part of Generator**
Generator 1	300 MWs online	Yes
Generator 2	200 MWs online	Yes
Generator 3 (Pseudo-Tied out to BA2)	100 MWs online	No
Generator 4 QF (has backup contract)	10 MWs online	No
Generator 5 QF in EMS	10 MWs online	Yes
Generator 6	0 MWs online	Yes
Dynamic Schedule to BA2 from BA1[1]	(50 MWs)	
Generation	620 MWs	(The sum of gen 1-6)
BA generation (EMS)	510 MWs	(The sum of gen 1, 2, and 5)
Generation to use Under BAL-002-WECC-1	460 MWs**	(The sum of gen 1, 2 and 5 minus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would maintain reserves based on 510 MWs Generation.

BA2 / RSG2	**Generation**	**Part of Generator**
Generator 11	100 MWs	Yes

[1] Note: This Dynamic Schedule is not the same as the Generator 3 Pseudo-Tie.

Generator 12	100 MWs	Yes
Generator 3 (Pseudo-Tied in from BA1)	100 MWs	Yes
Dynamic Schedule from BA1 to BA2	50 MWs	Yes
Generation	300 MWs	(The sum of gen 11, 12 and 3.)
BA generation (EMS)	300 MWs	(The sum of gen 11, 12 and 3)
Generation to use Under BAL-002-WECC-1	350 MWs**	(The sum of gen 11, 12 and 3 plus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would have to maintain reserves based on 510MWs Generation and BA2 would determine its generation to be 300 MWs.

Guideline and Technical Basis

A Guidance Document addressing implementation of this standard has been filed with this standard.

~~WECC Standard BAL-002-WECC-1 – Contingency Reserves~~ **Attachment C**

A. ~~A.~~ Introduction

~~1.~~

1. Title: **Contingency ~~Reserves~~Reserve**

2. ~~2.~~ Number: BAL-002-WECC-2

~~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.~~

3. ~~4.~~ Purpose: To specify the quantity and types of Contingency Reserve required to ensure reliability under normal and abnormal conditions.

4. Applicability:

4.1 ~~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~~**1.1.** The Balancing Authority ~~that is not~~ is the responsible entity unless the Balancing Authority is a member of a Reserve Sharing Group, in which case, the Reserve Sharing Group becomes the responsible entity.

4.2 Reserve Sharing Group

4.2.1. The Reserve Sharing Group when comprised of a Source Balancing Authority becomes the source Reserve Sharing Group.

4.2.2. The Reserve Sharing Group when comprised of a Sink Balancing Authority becomes the sink Reserve Sharing Group.

5. Effective Date: On the first day of the third quarter following applicable regulatory approval.

B. Requirements and Measures

R1. Each Balancing Authority and each Reserve Sharing Group shall maintain ~~as~~ a minimum amount of Contingency Reserve~~-~~, except within the first sixty minutes following an event requiring the activation of Contingency Reserve, that is ~~the~~

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~~sum of the following~~: *[Violation Risk Factor: ~~Medium~~High] [Time Horizon: Real-time ~~Operations~~operations]*

~~R1.~~1.1 The greater of ~~the following:~~either:

~~R1.1.1.~~ ~~An~~

- The amount of ~~reserve~~Contingency Reserve equal to the loss of the most severe single contingency; ~~or~~

- **~~R1.1.2.~~** ~~An~~The amount of ~~reserve~~Contingency Reserve equal to the sum of three percent of ~~the load (generation minus station service minus Net Actual Interchange) and~~ hourly integrated Load plus three percent of ~~net~~hourly integrated 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 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~~

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~~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.**~~**1.2** Comprised of any combination of the reserve types specified below:

- Operating Reserve – Spinning
- Operating Reserve - Supplemental
- Interchange Transactions designated by the ~~source~~Source Balancing Authority as ~~non-spinning contingency reserve;~~Operating Reserve – Supplemental

~~**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~~A resource, other than generation or load, that can provide energy or reduce energy consumption
- Load, including demand response resources, Demand-Side Management resources, Direct Control Load Management, Interruptible Load or Interruptible ~~Load~~Demand, or any other Load made available for curtailment by the Balancing Authority or the Reserve Sharing Group via contract or agreement.
- All other load, not identified above, once the Reliability Coordinator has declared ~~a capacity or~~ an energy emergency~~:~~ alert signifying that firm load interruption is imminent or in progress.

~~**C. Measures**~~

1.3 Based on real-time hourly load and generating energy values averaged over each Clock Hour (excluding Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Order 464).

1.4 An amount of capacity from a resource that is deployable within ten minutes.

M1. ~~The~~ Each Balancing Authority and each Reserve Sharing Group ~~or~~will have

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documentation demonstrating its Contingency Reserve was maintained, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Part 1.1

Each Balancing Authority ~~that is not a member of a~~and each Reserve Sharing Group ~~has~~will have dated documentation that demonstrates its Contingency Reserve was maintained in accordance with the amounts identified in Requirement R1, Part 1.1, except within the first sixty minutes following an event requiring the activation of Contingency Reserve.

Attachment A is a practical illustration showing how the generation amount may be calculated under Requirement R1.

- Where Dynamic Schedules are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1 may include, but is not limited to, documentation showing a reciprocal acknowledgement as to which entity is carrying the reserves. This transfer may be all or some portion of the physical generator and is not limited to the entire physical capability of the generator.

- Where Pseudo-Ties are used as part of the generation amount upon which Contingency Reserve is predicated, additional evidence of compliance with Requirement R1, Part 1.1, may include, but is not limited to, documentation accounting for the transfers included in the Pseudo-Ties.

Part 1.2

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.2. Evidence may include, but is not limited to, documentation that reserves were comprised of the types listed in Requirement R1, Part 1.2 for purposes of meeting the Contingency Reserve obligation of Requirement R1. Additionally, for purposes of the last bullet of Requirement R1, Part 1.2, evidence of compliance may include, but is not limited to, documentation that the reliability coordinator had issued an energy emergency alert, indicating that firm Load interruption was imminent or was in progress.

Part 1.3

Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates compliance with Requirement R1, Part 1.3. Evidence of compliance with Requirement R1, Part 1.3 may include, but is not limited to, documentation that Contingency Reserve amounts are based upon load and generating data averaged over each Clock Hour and excludes Qualifying Facilities covered in 18 C.F.R.§ 292.101, as addressed in FERC Order 464.

Part 1.4

Evidence of compliance with Requirement R1, Part 1.4 may include, but is not

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limited to, documentation that the reserves maintained to comply with Requirement R1, Part 1.4 are fully deployable within ten minutes.

R2. Each Balancing Authority and each Reserve Sharing Group shall maintain at least half of its minimum amount of Contingency Reserve identified in Requirement R1, as Operating Reserve – Spinning that meets both of the following reserve characteristics. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

2.1 Reserve that is immediately and automatically responsive to frequency deviations through the action of a governor or other control system;

2.2 Reserve that is capable of fully responding within ten minutes.

M2. Each Balancing Authority and each Reserve Sharing Group will have dated documentation that demonstrates it maintained ~~100% of required Contingency Reserve levels based upon data integrated over each clock hour except within the first~~at least half of the Contingency Reserve identified in Requirement R1 as Operating Reserve – Spinning, averaged over each Clock Hour, that met both of the reserve characteristics identified in Requirement R2, Part 2.1 and Requirement R2, Part 2.2.

~~105 minutes (15 minute Disturbance Recovery Period, plus 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~~

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~~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.**~~

R3. Each Sink Balancing Authority and each sink Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, except within the first sixty minutes following an event requiring the activation of Contingency Reserve. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M3. Each Sink Balancing Authority and each sink Reserve Sharing Group will have dated documentation demonstrating it maintained an amount of Operating Reserve, in addition to the Contingency Reserve identified in Requirement R1, equal to the amount of Operating Reserve–Supplemental for any Interchange Transaction designated as part of the Source Balancing Authority's Operating Reserve–Supplemental or source Reserve Sharing Group's Operating Reserve–Supplemental, for the entire period of the transaction, except within the first sixty minutes following an event requiring the activation of Contingency Reserves, in accordance with Requirement 3.

R4. Each Source Balancing Authority and each source Reserve Sharing Group shall maintain an amount of Operating Reserve, in addition to the minimum Contingency Reserve amounts identified in Requirement R1, equal to the amount and type of Operating Reserves for any Operating Reserve transactions for which it is the Source Balancing Authority or source Reserve Sharing Group. *[Violation Risk Factor: High] [Time Horizon: Real-time operations]*

M4. Each Source Balancing Authority and each source Reserve Sharing Group will have dated documentation that demonstrates it maintained an amount of additional Operating Reserves identified in Requirement R1, greater than or equal to the amount and type of that identified in Requirement 4, for the entire period of the transaction.

C. Compliance

1. ~~Compliance~~ Monitoring Process

~~1.1 Compliance Monitoring Responsibility~~

1.1 Compliance Enforcement Authority

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For entities that do not work for the Regional Entity, the Regional Entity shall serve as the Compliance Enforcement Authority.

For Reliability Coordinators and other functional entities that work for their Regional Entity, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

For responsible entities that are also Regional Entities, the ERO or a Regional Entity approved by the ERO and FERC or other applicable governmental authorities shall serve as the Compliance Enforcement Authority.

1.2 Compliance Monitoring ~~Period~~and Assessment Processes:

~~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 Audit

Self-Certification

Spot Checking

Compliance ~~Enforcement Authority~~Investigation

~~- Investigations~~

~~- Other methods as provided for in the Compliance Monitoring Enforcement Program~~

~~Reserve Sharing Groups and~~ Self-Reporting

Complaint

1.3 Evidence 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.

Each 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~~ Authority and each ~~calendar quarter.~~

~~**1.2.1** Compliance Monitoring Period: One Clock Hour.~~

~~**1.2.2** The Performance-reset Period is calendar quarter.~~

~~**1.3 Data Retention**~~

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Reserve Sharing ~~Groups and Balancing Authorities~~Group shall keep evidence for ~~Measure M.1~~Requirement R1 through ~~M3~~R4 for three years plus calendar current~~, or since the last audit, whichever is longer~~.

1.4. Additional Compliance Information

1.4.1. This Standard shall apply to ~~a~~each Balancing Authority and each Reserve Sharing Group that has registered with ~~the~~ WECC as provided in Part 1.4.2 of Section ~~1.4.2, and each~~C.

Each Balancing Authority identified in the registration with WECC as provided in Part 1.4.2 of Section C shall be responsible for compliance with this

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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~~: 1) indicating that the Reserve Sharing Group is registering as the Responsible Entity for purposes of compliance with this Standard, ~~(b~~2) identifying each Balancing Authority that is a member of the Reserve Sharing Group, and ~~(c~~3) 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 Part 1.4.2 of Section ~~1.4.2~~C 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~~: 1) 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~~2) each Balancing Authority shall be solely responsible for all penalties allocated to it according to its percentage of responsibility as provided in subsection ~~(a~~1) of this Part 1.4.3 of Section ~~1.4.3~~C, and ~~(c~~3) 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~~1) of this Part 1.4.3 of Section ~~1.4.3~~C (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).

1.4.4. If an agent properly designated in accordance with Part 1.4.2 of Section ~~1.4.2~~C 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 Part 1.4.2 of Section ~~1.4.2~~C shall be subject to this Standard on an individual basis.

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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.

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

~~**WECC Standard BAL-002-WECC-1 — Contingency Reserves**~~

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Table of Compliance Elements

~~Version~~	~~Date~~Time Horizon	~~Action~~VRF	~~Change Tracking~~Violation Severity Levels			
~~1~~	~~April 16, 2008~~	~~Permanent Replacement Standard for BAL-STD-002-0~~	Lower VSL	Moderate VSL	High VSL	Severe VSL
R1	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 100% but greater than or equal to 90% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 90% but greater than or equal to 80% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 80% but greater than or equal to 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.	The Balancing Authority or the Reserve Sharing Group that incurs one Clock Hour, during a calendar month, in which Contingency Reserve is less than 70% of the required Contingency Reserve amount, with the characteristics specified in Requirement R1.
R2	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one Clock	The Balancing Authority or the Reserve Sharing Group that incurs one	The Balancing Authority or the Reserve Sharing Group that incurs one	The Balancing Authority or the Reserve Sharing Group that incurs one

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~~Version~~	~~Date~~	~~Action~~	~~Change Tracking~~			
~~1~~	~~April 16, 2008~~	~~Permanent Replacement Standard for BAL-STD-002-0~~	Lower VSL	Moderate VSL	High VSL	Severe VSL
			Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 100% but greater than or equal to 90% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 90% but greater than or equal to 80% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 80% but greater than or equal to 70% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.	Clock Hour, during a calendar month, in which Contingency Reserve Operating Reserve - Spinning is less than 70% of the required Operating Reserve–Spinning amount specified in Requirement R2, and both characteristics were met.
R3	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 100% but	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 90% but	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 80% but	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve is less than 70% of the

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~~Version~~	~~Date~~	~~Action~~	~~Change Tracking~~	Violation Severity Levels		
~~1~~	~~April 16, 2008~~	~~Permanent Replacement Standard for BAL-STD-002-0~~	Lower VSL	Moderate VSL	High VSL	Severe VSL
			greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R3.	greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R3.	greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R3.	required Operating Reserve amount specified in Requirement R3.
R4	Real-time Operations	High	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 100% but greater than or equal to 90% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 90% but greater than or equal to 80% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 80% but greater than or equal to 70% of the required Operating Reserve amount specified in Requirement R4.	The Balancing Authority or the Reserve Sharing Group that incurs one hour, during a calendar month, in which Contingency Reserve Operating Reserve is less than 70% of the required Operating Reserve amount specified in Requirement R4.

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D. Regional Variances

None.

E. Interpretations

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None.

F. Associated Documents

None.

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Attachment A

Attachment A is illustrative only; it is not a requirement. Requirement R1 calls for an amount of Contingency Reserve to be maintained, predicated on an amount of generation and load required in Requirement R1, Part 1.1., specifically:

"1.1 The greater of either:

- The amount of Contingency Reserve equal to the loss of the most severe single contingency;
- The amount of Contingency Reserve equal to the sum of three percent of hourly integrated Load plus three percent of hourly integrated generation."

Attachment A illustrates one possible way to account for and calculate the amount of generation upon which the Contingency Reserve amount is predicated.

Below is a practical illustration showing how the generation amount may be calculated under Requirement R1 for Balancing Authorities (BA) and Reserve Sharing Groups (RSG).

BA1 / RSG 1	**Generation**	**Part of Generator**
Generator 1	300 MWs online	Yes
Generator 2	200 MWs online	Yes
Generator 3 (Pseudo-Tied out to BA2)	100 MWs online	No
Generator 4 QF (has backup contract)	10 MWs online	No
Generator 5 QF in EMS	10 MWs online	Yes
Generator 6	0 MWs online	Yes
Dynamic Schedule to BA2 from BA1[1]	(50 MWs)	
Generation	620 MWs	(The sum of gen 1-6)
BA generation (EMS)	510 MWs	(The sum of gen 1, 2, and 5)
Generation to use Under BAL-002-WECC-1	460 MWs**	(The sum of gen 1, 2 and 5 minus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would maintain reserves based on 510 MWs Generation.

BA2 / RSG2	**Generation**	**Part of Generator**
Generator 11	100 MWs	Yes

[1] Note: This Dynamic Schedule is not the same as the Generator 3 Pseudo-Tie.

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Generator 12	100 MWs	Yes
Generator 3 (Pseudo-Tied in from BA1)	100 MWs	Yes
Dynamic Schedule from BA1 to BA2	50 MWs	Yes
Generation	300 MWs	(The sum of gen 11, 12 and 3.)
BA generation (EMS)	300 MWs	(The sum of gen 11, 12 and 3)
Generation to use Under BAL-002-WECC-1	350 MWs**	(The sum of gen 11, 12 and 3 plus Dynamic Schedule)

** Assumes BA1 and BA2 agree on Dynamic Schedule treatment. If no agreement, BA1 would have to maintain reserves based on 510MWs Generation and BA2 would determine its generation to be 300 MWs.

Guideline and Technical Basis

A Guidance Document addressing implementation of this standard has been filed with this standard.

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Implementation Plan
BAL-002-WECC-2
Contingency Reserve
Attachment E

Standards Authorization Request

http://www.wecc.biz/Standards/Development/Lists/Request%20Form/DispForm.aspx?ID=83&Source=/Standards/Development

Approvals Required

BAL-002-WECC-2
Contingency Reserve

Prerequisite Approvals

On May 18, 2012, the WECC Ballot Pool approved the standard during the April 2, 2012, through May 18, 2012, ballot window. Results of that ballot can be found here. A summary of those results follows.

Ballot Name:	BAL-002-WECC-2 Modification to BAL-002-WECC-1 Contingency Reserve
Ballot Period:	4/2/2012 - 5/18/2012
Total # Votes:	158
Total Ballot Pool:	174
Quorum:	90.8%
Weighted Sector Vote:	80.6%
Ballot Results:	The standard has passed

On May 21, 2012, the WECC Standards Committee approved forwarding the standard to the WECC Board of Directors. A summary of that approval follows.

Name	Organization	Sector	Yes	No	Abstain	A vote was not cast
Angela Small	NAES	2 Generation	X			
Crystal	Proven	8 Other Non-	X			

Musselman	Compliance Solutions	Registered Entities				
Dana Cabbell	Southern California Edison	1 Transmission	X			
Gregory Maxfield	PacifiCorp	3 Marketers and Brokers				X
Jerry Murray	Oregon Public Utility Commission	7 State and Provincial Representatives				X
John Meyer	Non-Affiliate Director / WSC Chair	Board	X			
Joseph Tarantino	Sacramento Municipal Utility District	5 System Coordination	X			
Glen Hoisington	FEUS	4 Distribution				X
Rick Noger	Praxair	6 End User Representative Sector			X	

On June 26, 2012, the WECC Board of Directors approved the standard during the WECC June 2012 Board meeting. The WECC Board of Directors voting summary can be found here.

Applicable Entities

Balancing Authority
Reserve Sharing Group

Conforming Changes to Other Standards

None required as BAL-002-WECC-2 is designed to modify BAL-002-WECC-1 in accordance with FERC Order 740, and to replace BAL-STD-002-0 upon the Effective Date of BAL-002-WECC-2.

Effective Date

On the first day of the third quarter, after receipt of applicable regulatory approval.

Justification of Effective Date

BAL-002-WECC-2 may require execution of contracts by some entities before implementation can occur. In response to comments and requests from the field, the drafting team opted for the above Effective Date as a means to allow applicable entities to finalize needed contracts.

Consideration of Early Compliance

BAL-002-WECC-2 predominately addresses the types and amounts of Contingency Reserve required of the applicable entities, based upon three percent of load and three percent of generation. Should the applicable entities opt for early compliance, there is no empirical evidence suggesting a decrease in reliability as the amount of Contingency Reserve required under the proposed standard approximates the amount of Contingency Reserve already being maintained.

Retirements

BAL-002-WECC-2 is designed to modify BAL-002-WECC-1 in accordance with FERC Order 740, and to replace BAL-STD-002-0 upon the Effective Date of BAL-002-WECC-2.

Name (6 Responses)
Organization (6 Responses)
Group Name (4 Responses)
Lead Contact (4 Responses)
Question 1 (10 Responses)
Question 1 Comments (10 Responses)
Question 2 (10 Responses)
Question 2 Comments (10 Responses)
Question 3 (10 Responses)
Question 3 Comments (10 Responses)
Question 4 (9 Responses)
Question 4 Comments (10 Responses)
Question 5 (10 Responses)
Question 5 Comments (10 Responses)

Individual
Keira Kazmerski
Xcel Energy
Yes
No
The proposed standard addresses the shortcomings of the existing standard as it relates to commercial impacts and reliability issues while maintaining a reserve requirement comparable to the existing requirement. The existing standard pits Balancing Authority operators against non-Balancing Authority owned generation and raises questions as to what is and is not allowed when it comes to selling “firm” power from these generators. The proposed standard removes this issue from the standard and allows the Balancing Authority operator to determine the reserve quantity without having to know each transaction’s impact to the reserve requirement.
No
Yes
Group
Bonneville Power Administration
Chris Higgins
Yes
No
No
No
Yes
Group
Salt River Project
Chris Chavez
Yes

No
No
No
Yes
Individual
Claire Lloyd
Tacoma Power
Yes
Tacoma Power acknowledges that the proposed new WECC standard was developed and routed through the WECC and subsequently through the NERC process. Tacoma Power has not supported this proposed new WECC standard due to the fact that it will produce approximately the same amount of total contingency operating reserves, yet it will make a significant shifting of the contingency reserve obligation between the entities, including new entities. This shifting of the contingency reserve obligation has not been shown to be a benefit to the interconnection and is unnecessary.
No
Tacoma Power does not know of any adverse impact to any neighboring region or interconnection.
No
Tacoma Power notes that the contingency reserve obligation will be shifted between the entities under the proposed new WECC standard. We do not have the expertise to determine if there is any serious or substantial threat to public health, safety, welfare, or national security due to the shifting of contingency reserve obligation between the entities.
Yes
As Tacoma Power has stated above, this proposed new WECC standard shifts the contingency reserve obligation between the entities in WECC. Due to this shift, new or different relationships will have to be created. Cost causation principles will create new issues for the entities such that the entities that are responsible for providing the new contingency reserve obligations are truly held responsible. New contracts will have to be executed between these new entities and the balancing authorities, and there is no guarantee of agreement.
Yes
Tacoma Power believes that at least one of the criteria is met. However, that does not mean it is the right thing to do. We believe that this proposed new WECC standard has a significant shift in the contingency reserve obligation without any demonstrated benefits and no increased reliability. We urge you to not approve the proposed new WECC standard. Thank you for consideration of our comments.
Group
PacifiCorp
Sandra Shaffer
Yes
No
No
No
While PacifiCorp does not believe the proposed standard would pose a serious and subsantial burden on existing competitive markets, we do believe that it may lead to the creation of a new market product.

Yes
Individual
Mark B Thompson
Alberta Electric System Operator
Yes
No
The AESO does not agree with the FERC assessment that an EEA3 level is the appropriate level for a supply shortfall situation when using firm load as reserves. An EEA3 is defined as – firm load curtailment is immanent or in progress. The AESO does not believe that using firm load as reserves, in this situation, is an “imminent” firm load curtailment (R 1.2 last bullet). NERC EOP-002-3 Attachment 1 supports this position.
No
No
Yes
Individual
Mike Goodenough
Powerex
Yes
Yes
The elimination of the requirement to carry additional reserves for interruptible imports may be a step backward in relaibility until such time that the issue of reserve requirements associated with interruptible imports is addressed in some way, either through another standard development process or a regional criteria that specifically identifies the operating reserves required for interruptible imports.
No
No
Yes
Individual
Richard Vine
California ISO
Yes
No
No
No
Though the proposed standard may not pose a "serious and substantial" burden on competetive markets, the ISO feels that (1)the proposed recovery period is more burdensome than necessary and (2) more clarity should be provided as to allowed technology to meet operating reserve requirements as follows: 1. The ISO believes the last sentence in Measurements M1.1, M2 and M3 should be

modified to indicate that the 60-minute recovery period begins when the DCS event is over, at the end of the allowed 15-minute recovery period. This would be consistent with what is allowed by the NERC BAL-002-0 Standards which specifically states that "The Contingency Reserve Restoration Period begins at the end of the Disturbance Recovery Period." The current wording "within 60 minutes of the event" is too vague and has been interpreted by the drafting team to mean "from the start of the event." This interpretation would mean that WECC entities have only 45 minutes after the recovery period to restore reserves which is only half of the 90 minutes Eastern entities would have. This seems overly burdensome and will continue to be an ever greater challenge as we increase the levels of intermittent renewables going forward. 2. The proposed Requirement R2 in BAL-002-WECC-1 requires that at least half of the Contingency Reserve obligation be "Operating Reserve - Spinning", which is in the NERC Glossary of Terms. The problem is that the NERC definition of "Operating Reserve - Spinning" focuses on generation and demand response, which raises doubt as to whether a battery or other form of energy storage could be used. In keeping with the spirit that FERC has made clear that Reliability Standards should not dictate the type of technology used to meet a reserve requirement NERC should consider revising the definition of "Operating Reserve - Spinning" to ensure this is understood.
Yes
Individual
Tina Gary
Portland General Electric Company
Yes
Although the process has been open, WECC disregarded some major concerns voiced by the industry. Portland General Electric Company (PGE) is concerned that the consequences of the proposed standard were not fully considered and worry that the standard will have a negative impact on the reliability of the BES in the Western region. The reliability concerns with the standard must be addressed before it is approved for use by the industry. Under WECC rules, a proposed standard is submitted to NERC with only a simple majority, potentially telephonic, vote of the WECC standing committee membership. This process differs from that used by NERC, which will not pass a standards revision without a 70% weighted majority of members approving the proposed standard. During the 2011 balloting of subject matter experts and the standing committee, the proposal failed and the WECC Board sent the proposal back to the drafting committee to address issues presented in the "No" vote statements. However, the proposal is now up for comment simultaneously within both WECC and NERC without adequately addressing the concerns of the voting members.
Yes
PGE is concerned that the proposed standard puts the responsibility to provide reserves in part on the Sink Balancing Authorities (BAs)/Load Serving Entities (LSEs), which are subject to an immature bilateral market for acquisition of said reserves. If Sink BAs / LSEs are not able to acquire the proposed reserve level, they could be forced to shed load to remain compliant with the proposed standard. There is a fundamental difference between the acquisition of reserves in an organized market compared to a bilateral market such as that prominent in the WECC region. In a bilaterally based market, because generators are not subject to must-run requirements and are not required to offer their generation into the market, Sink BAs /LSEs do not have assured access to spinning and non-spinning capacity. Therefore, reserve requirements are currently maintained by the generators in the majority of the WECC region. Generators are the only entities that have the assured ability, without shedding load, to respond to contingency events. The transfer of reserve obligation from generators to load is an unnecessary cost shift from the parties physically able to perform, to parties that must contract. Moreover, even if a contracting party is able to secure reserves, there would be no assurance that they could secure transmission on a system encumbered due to the requirements of the proposed standard. Simply put, the proposed BAL-002-WECC-01 shifts costs with no associated increase in reliability, and would potentially reduce reliability and increase transmission constraints in the WECC region.
No
Yes

• PGE is concerned with the movement toward unnecessary changes to an approved reliability standard as proposed in BAL-002-WECC-1 that will not result in increased reliability. The changes made through BAL-002-WECC-1 go beyond the language clarity and consistency required by FERC in the 2007 Order (RR07-11) and seem to be driven more by the economic interests to shift contingency reserve responsibility (i.e. costs) from the generators to the loads rather than improving reliability. Changes to reliability standards should be driven by technical merit weighed against overall costs. The standards process should not be used as a lever to shift costs among members. • The current "Tier One" BAL-STD-002-0 reflects the longstanding WECC Minimum Operating Reliability Criteria (MORC) by breaking down required operating reserve into four components: regulating reserve, contingency reserve, reserve for on-demand obligations, and reserves for interruptible imports. However, the proposed BAL-002-WECC-1 narrows the scope to only contingency reserve, which raises the question of what happens to the other components. In the time since the initial comment period on BAL-002-WECC-1, WECC has retired the WECC MORC with some parts preserved as new “criteria”. However, the reserve requirements for interruptible schedules and on-demand rights/obligations were not preserved. The passage of the proposed BAL-002-WECC-1 and the retirement of the WECC MORC would remove any explicit reserve requirements for interruptible schedules and on-demand rights/obligations. The effect of this can only be a step down in the reliability of the interconnected system. • The clarification of "load responsibility" and e-tag 1.8 helped characterize the nature of the transactions. For the "sink" BA, it identified those imports that were "firm for the hour". The simplified calculation of contingency reserve in BAL-002-WECC-1 does NOT consider the responsibility of the BA to anticipate which imports might be interrupted in-hour, and therefore the quantity of additional reserves that need to be available. Under BAL-002-WECC-1 everyone will be forced to parse the energy codes to infer what energy is "firm for the hour". BAL-002-WECCC-1 should require continued use of the "load responsibility" feature in e-tag 1.8 to clearly identify those transactions that are not "firm for the hour". • Despite industry-voiced concerns over the difficulty of interpreting "load responsibility", BAL-002-WECC-1 is saddled with the term "interruptible load". Such poorly defined terms put the BA in a position to judge whether or not loads offered up by an LSE meet the contract requirements of being "interruptible". • BAL-002-WECC-1 is assuming a robust reserves market in the West. The West does not have a mature reserves market. This new standard will put additional burden on the load serving entities by forcing them to procure reserves, if available, from third parties in order to meet the new standard. PGE is concerned this requirement will increase demand for capacity across constrained transmission without any beneficial increase in reliability. • PGE is concerned that the proposed standard puts the responsibility to provide reserves in part on the Sink Balancing Authorities (BAs)/Load Serving Entities (LSEs), which are subject to an immature bilateral market for acquisition of said reserves. If Sink BAs / LSEs are not able to acquire the proposed reserve level, they could be forced to shed load to remain compliant with the proposed standard. There is a fundamental difference between the acquisition of reserves in an organized market compared to a bilateral market such as that prominent in the WECC region. In a bilaterally based market, because generators are not subject to must-run requirements and are not required to offer their generation into the market, Sink BAs /LSEs do not have assured access to spinning and non-spinning capacity. Therefore, reserve requirements are currently maintained by the generators in the majority of the WECC region. Generators are the only entities that have the assured ability, without shedding load, to respond to contingency events. The transfer of reserve obligation from generators to load is an unnecessary cost shift from the parties physically able to perform, to parties that must contract. Moreover, even if a contracting party is able to secure reserves, there would be no assurance that they could secure transmission on a system encumbered due to the requirements of the proposed standard. Simply put, the proposed BAL-002-WECC-01 shifts costs with no associated increase in reliability, and would potentially reduce reliability and increase transmission constraints in the WECC region.
Yes
a. While the proposed standard has more specificity than the continent-wide standard, the proposed standard’s increased specificity has not been proven to provide additional reliability or clarity than the existing regional reliability standard. b. The proposed standard does not include requirements that are not included in the corresponding continent-wide reliability standard that are not already contained within the existing regional reliability standard. c. The proposed standard does not consider the differences between the bulk of WECC’s operational model (i.e., a bilateral path based model), and a centrally managed flow based model. Ignoring the differences between the two models and implementing the proposed standard would impose cost shifting with the potential for a reduced level

of reliability. The reduced liability would be due to reserve requirements being placed on entities that have no assured ability to respond to contingency events without shedding load.
Group
NorthWestern Corporation
John Canavan
Yes
No
No
No
Yes

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

Consideration of Comments

Regional Reliability Standard BAL-002-WECC-1

The Regional Reliability Standard Drafting Team (Drafting Team) thanks all commentors who submitted comments on the BAL-002-WECC-1 – Contingency Reserve (Order 740 Remand).[1] This standard was posted for a 45-day public comment period from January 6, 2012 through February 20, 2012. Stakeholders were asked to provide feedback on the standard and associated documents through a special electronic comment form. There were 10 sets of comments, including comments from 13 different people from 10 companies representing six of the 10 Industry Segments as shown in the table on the following pages.

All comments submitted may be reviewed in their original format on the standard's project page:

http://www.nerc.com/filez/regional_standards/regional_reliability_standards_under_development.html

If you feel that your comment has been overlooked, please let us know immediately. Our goal is to give every comment serious consideration in this process! If you feel there has been an error or omission, you can contact the Vice President of Standards and Training, Mark Lauby, at 404-446-2560 or at mark.lauby@nerc.net. In addition, there is a NERC Reliability Standards Appeals Process.[2]

[1] Developed as WECC-0083.

[2] The appeals process is in the Reliability Standards Development Procedures: http://www.nerc.com/standards/newstandardsprocess.html.

Index to Questions, Comments, and Responses

The Industry Segments are:

1 — Transmission Owners
2 — RTOs, ISOs
3 — Load-serving Entities
4 — Transmission-dependent Utilities
5 — Electric Generators
6 — Electricity Brokers, Aggregators, and Marketers
7 — Large Electricity End Users
8 — Small Electricity End Users
9 — Federal, State, Provincial Regulatory or other Government Entities
10 — Regional Reliability Organizations, Regional Entities

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
1.	Group	Chris Higgins	Bonneville Power Administration	X		X		X	X				

	Additional Member	Additional Organization	Region	Segment Selection
1.	Bart	McManus	WECC	1
2.	Fran	Halpin	WECC	5
3.	Brenda	Anderson	WECC	6

2.	Individual	Chris Chavez	Salt River Project	X		X		X	X				
3.	Individual	Sandra Shaffer	PacifiCorp	X		X		X	X				
4.	Individual	John Canavan	NorthWestern Corporation	X		X		X					
5.	Individual	Keira Kazmerski	Xcel Energy	X		X		X	X				
6.	Individual	Claire Lloyd	Tacoma Power	X		X	X	X	X				

Group/Individual		Commenter	Organization	Registered Ballot Body Segment									
				1	2	3	4	5	6	7	8	9	10
7.	Individual	Mark B Thompson	Alberta Electric System Operator		X								
8.	Individual	Mike Goodenough	Powerex						X				
9.	Individual	Richard Vine	California ISO		X								
10.	Individual	Tina Gary	Portland General Electric Company	X		X		X	X				

1. **Do you agree the proposed standard is being developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure?**

Summary Consideration:

Ten of the ten respondents agreed the proposed standard is being developed in a fair and open process, using the associated Regional Reliability Standards Development Procedure. The Drafting Team appreciates the consensus.

Organization	Yes or No	Question 1 Comment
Bonneville Power Administration	Yes	
Salt River Project	Yes	
PacifiCorp	Yes	
NorthWestern Corporation	Yes	
Xcel Energy	Yes	
Tacoma Power	Yes	Tacoma Power acknowledges that the proposed new WECC standard was developed and routed through the WECC and subsequently through the NERC process. Tacoma Power has not supported this proposed new WECC standard due to the fact that it will produce approximately the same amount of total contingency operating reserves, yet it will make a significant shifting of the contingency reserve obligation between the entities, including new entities. This shifting of the contingency reserve obligation has not been shown to be a benefit to the interconnection and is unnecessary.

Organization	Yes or No	Question 1 Comment
Response: The Drafting Team notes and appreciates your consensus as to use of the process for developing the proposed standard and commends Tacoma for its continued participation. The Drafting Team also notes Tacoma's concern that when changes are made to the reliability aspects of the grid via implementation of reliability standards, these changes do not come without a shifting of obligation or cost. Further, the Drafting Team acknowledges that as standards are implemented, cost shifting often occurs giving way to the argument that the sole intent of the changes is financially motivated. Finally, the Drafting Team acknowledges that these facts are no mystery to the industry and the processes for development of standards hold the potential to be used for financial as opposed to reliability-related purposes. The Drafting Team did consider the potential of cost shifting in a number of forums, largely in the early years of developing this standard. This Drafting Team and its predecessors concluded that an even split of the burden between generation and load was a reasonable approach, albeit, not the only possible approach. Based on the evaluation of different alternatives to determine the allocation methodology, the Drafting Team determined that this methodology had the least negative effect on the greatest number of entities. The Drafting Team acknowledges that anytime there is a cost shift, some will incur greater costs, some will lower their costs, and some will remain revenue neutral. Support or opposition for the shift generally depends on which side of the equation one falls. As to this specific standard, the Drafting Team does not claim to know all the differences between those entities dissuaded by the standard because it may harm their own profit and loss statements versus those in support of the standard because its higher criteria bolsters reliability. Rather, the Drafting Team has endeavored to meet both the mandates of Order 740 as well as the mandate to be responsive imposed by the Process for Developing and Approving WECC Standards (Process). The Drafting Team is reluctant to meet one obligation without also meeting the other.		
Alberta Electric System Operator	Yes	

Organization	Yes or No	Question 1 Comment
Powerex	Yes	
California ISO	Yes	
Portland General Electric Company	Yes	Although the process has been open, WECC disregarded some major concerns voiced by the industry. Portland General Electric Company (PGE) is concerned that the consequences of the proposed standard were not fully considered and worry that the standard will have a negative impact on the reliability of the BES in the Western region. The reliability concerns with the standard must be addressed before it is approved for use by the industry.Under WECC rules, a proposed standard is submitted to NERC with only a simple majority, potentially telephonic, vote of the WECC standing committee membership. This process differs from that used by NERC, which will not pass a standards revision without a 70% weighted majority of members approving the proposed standard. During the 2011 balloting of subject matter experts and the standing committee, the proposal failed and the WECC Board sent the proposal back to the drafting committee to address issues presented in the "No" vote statements. However, the proposal is now up for comment simultaneously within both WECC and NERC without adequately addressing the concerns of the voting members.

Response:

The Drafting Team notes and appreciates your consensus as to use of the process for developing the proposed standard and commends PGE for its continued participation.

The Drafting Team notes PGE's concurrence that the process has been fair and open. Part of that process has been the receipt, consideration, and response to PGE's comments each time they have been submitted. The Drafting Team suggests that disagreement with PGE's position is not the same as disregarding PGE's position. Noting that numerous entities have commented on the document during its development, many of those entities are diametrically opposed to

Organization	Yes or No	Question 1 Comment
PGE's position. All positions cannot be accommodated; however, all positions are considered. Noting PGE's concurrence that the process has been fair and open, the Drafting Team points out that although the WECC process differs from the NERC process it still maintains a number of required tiered approvals before the document can be finally approved. Specifically, solely within WECC, the Drafting Team, which is comprised of subject matter experts, must first approve the document for forwarding to the Operating Committee. Thereafter, the Operating Committee must approve of the document and subsequently the WECC Board of Directors must approve the document. As for the document being forwarded through the process without regard to consideration of the NERC comments received during this posting, that 45-day period closed on February 20, 2012. The Drafting Team met to review the comments on February 23, 2012 before making any decision to move the document forward in the development process. The Drafting Team assures PGE that PGE's comments have been received, considered, and addressed. They have not been disregarded. Finally, as to the May 19, 2011 vote, as drafted at that time the standard was approved by a majority of the Transmission Customers and failed by only three votes in the Transmission Providers category. Had those three votes been affirmative the document would have moved forward without additional change. In response to the negative votes, the Drafting Team considered the industry's input, made a number of very positive changes, and believes the document as drafted now addresses the majority of all "no" votes cast during the May 19, 2011 ballot.		

2. Does the proposed standard pose an adverse impact to reliability or commerce in a neighboring region or interconnection?

Summary Consideration: Of the ten respondents, eight stated the standard poses no adverse impact to reliability. Of the remaining two, Powerex is concerned that interruptible imports will not be covered and PGE is concerned that markets and transmission might not be available, and if available, this results in an unnecessary cost shift. As to Powerex, interruptible are addressed in R3 and R4. As to PGE's concerns, the team concluded that a mature capacity market does exist. As to the need for other markets to mature, the team believes there is ample industry experience to indicate that a market will be made where the need for a market is expressed.

Organization	Yes or No	Question 2 Comment
Bonneville Power Administration	No	
Salt River Project	No	
PacifiCorp	No	
NorthWestern Corporation	No	
Xcel Energy	No	The proposed standard addresses the shortcomings of the existing standard as it relates to commercial impacts and reliability issues while maintaining a reserve requirement comparable to the existing requirement. The existing standard pits Balancing Authority operators against non-Balancing Authority owned generation and raises questions as to what is and is not allowed when it comes to selling "firm" power from these generators. The proposed standard removes this issue from the standard and allows the Balancing Authority operator to determine the reserve quantity without having to know each transaction's impact to the reserve requirement.
Response: The Drafting Team appreciates your support and concurs with your conclusion.		

Organization	Yes or No	Question 2 Comment
Tacoma Power	No	Tacoma Power does not know of any adverse impact to any neighboring region or interconnection.
Response: The Drafting Team appreciated your support and concurs with your conclusion.		
Alberta Electric System Operator	No	The AESO does not agree with the FERC assessment that an EEA3 level is the appropriate level for a supply shortfall situation when using firm load as reserves. An EEA3 is defined as - firm load curtailment is immanent or in progress. The AESO does not believe that using firm load as reserves, in this situation, is an "imminent" firm load curtailment (R 1.2 last bullet). NERC EOP-002-3 Attachment 1 supports this position.
Response: The Drafting Team appreciates AESO's input regarding the issue of "EEA3." In FERC Order 740, P47, "NERC [agreed] with WECC that a reliability coordinator must declare a capacity or energy emergency before firm load could be considered to maintain contingency reserves…" In answering that position, FERC stated at P49, that "[B]alancing authorities and reserve sharing groups within WECC are subject to the same restrictions regarding the use of firm load as contingency reserve as balancing authorities elsewhere operating under the continent-wide Reliability Standard." To clarify the EEA3 issue, the proposed standard allows for Contingency Reserve to be comprised of "All other load…once the Reliability Coordinator has declared an energy emergency alert signifying that firm load interruption is imminent or in progress." (See R1, 1.2) It should be noted that the phrase "firm load interruption imminent or in progress" comes directly from the title of EOP-002-3, Capacity and Energy Emergencies, Attachment 1-EOP-002-2.1, Energy Emergency Alerts, "3. Alert 3 – Firm load interruption imminent or in progress" (AKA: EEA3 alert.)		
Powerex	Yes	The elimination of the requirement to carry additional reserves for interruptible imports may be a step backward in relaibility until such time that the issue of reserve requirements associated with interruptible imports is addressed in some way, either through another standard development process or a regional criterion that specifically identifies the operating reserves required for interruptible imports.

Organization	Yes or No	Question 2 Comment
Response: As to the use of the undefined terms “interruptible imports” or “interruptible load,” the Drafting Team recognized that within WECC the colloquial use of these phrases is not always universally understood or implemented in a standardized fashion. To address this concern the Drafting Team opted to use the NERC-defined term “Interruptible Load” contained in the NERC Glossary to avoid any misunderstanding. R3 of the proposed standard directly addresses the concept of interruptible schedules and R4 addresses the concept of on-demand energy. The standard is not designed to address how a Balancing Authority addresses market transactions (i.e., parsing of the energy codes). The standard as drafted does not preclude the continued use of the e-Tag system in any of its iterations. By contrast, the standard is designed to address Contingency Reserve obligations and Contingency Reserve transactions. The standard requires that the seller of Contingency Reserves hold reserves to meet that obligation. The standard is designed to ensure that a Balancing Authority carries reserves sufficient to respond to any loss of resource to include loss of its own generation or loss of an import. Of note, the remand order did not take issue with the associated language as drafted. While this approach may not align with all parties’ interpretation of the retired MORC language, the Drafting Team believes it addresses the reliability needs of the grid.		
California ISO	No	
Portland General Electric Company	Yes	PGE is concerned that the proposed standard puts the responsibility to provide reserves in part on the Sink Balancing Authorities (BAs)/Load Serving Entities (LSEs), which are subject to an immature bilateral market for acquisition of said reserves. If Sink BAs / LSEs are not able to acquire the proposed reserve level, they could be forced to shed load to remain compliant with the proposed standard. There is a fundamental difference between the acquisition of reserves in an organized market compared to a bilateral market such as that prominent in the WECC region. In a bilaterally based market, because generators are not subject to must-run

Organization	Yes or No	Question 2 Comment
		requirements and are not required to offer their generation into the market, Sink BAs /LSEs do not have assured access to spinning and non-spinning capacity. Therefore, reserve requirements are currently maintained by the generators in the majority of the WECC region. Generators are the only entities that have the assured ability, without shedding load, to respond to contingency events. The transfer of reserve obligation from generators to load is an unnecessary cost shift from the parties physically able to perform, to parties that must contract. Moreover, even if a contracting party is able to secure reserves, there would be no assurance that they could secure transmission on a system encumbered due to the requirements of the proposed standard. Simply put, the proposed BAL-002-WECC-01 shifts costs with no associated increase in reliability, and would potentially reduce reliability and increase transmission constraints in the WECC region.

Response:

Issue #1: Immature Market

The Drafting Team understands PGE's need for absolute certainty that a market will exist for the services described in the proposed standard. The Drafting Team also acknowledges PGE's statement that, indeed, a market does not exist, though it is immature. Additionally, the Drafting Team points PGE to PacifiCorp's statement below suggesting that, even if there is an immature market today, there is a likelihood that a new market will self-initiate to meet the needs of the marketplace. Although there is no guarantee that this standard will create a market, it is safe to say that — based on industry history — where a market need is expressed, a market will rise up to meet it. Further, there is no model that can perfectly predict market forces; thus, waiting on one as the precursor for addressing a reliability concern does not seem the wisest approach.

Issue #2: Transfers reserve obligation to contract parties as opposed to Generators

Although there may not be a mature bilateral market, there is a mature capacity market from which the required resources can be purchased. These capacity resources can and do provide the required resources based on their loading.

Organization	Yes or No	Question 2 Comment
Issue #3: No guarantee wires will be there The standard spreads the burden equally between load and generation. This spread better locates the resource to the load. Therefore, this standard provides an increased reliability over its predecessor in that it requires both load and generation (not just generation) to carry the reserves.		

3. Does the proposed standard pose a serious and substantial threat to public health, safety, welfare, or national security?

Summary Consideration: Of the ten respondents, all ten are in accord that the proposed standard either poses no serious/substantial threat to public health, safety, welfare, or national security; or, in the alternative, they are not in a position to perform a full analysis.

Organization	Yes or No	Question 3 Comment
Bonneville Power Administration	No	
Salt River Project	No	
PacifiCorp	No	
NorthWestern Corporation	No	
Xcel Energy	No	
Tacoma Power	No	Tacoma Power notes that the contingency reserve obligation will be shifted between the entities under the proposed new WECC standard. We do not have the expertise to determine if there is any serious or substantial threat to public health, safety, welfare, or national security due to the shifting of contingency reserve obligation between the entities.
Response: The Drafting Team appreciates your observation.		
Alberta Electric System Operator	No	
Powerex	No	
California ISO	No	

Organization	Yes or No	Question 3 Comment
Portland General Electric Company	No	

4. Does the proposed standard pose a serious and substantial burden on competitive markets within the interconnection that is not necessary for reliability?

Summary Consideration: Of the nine respondents, seven agree that the standard does not pose a serious/substantial burden on competitive markets within the interconnection that is not necessary for reliability. One did not respond. Of the two concerned respondents, Tacoma is concerned that there is no guarantee that a mature bilateral market will ever exist; albeit, they concur an immature market now exists. By contrast, PacifiCorp sees that passage of the standard could be the catalyst to creation of a new market. The standard cannot assure a market will be created; however, there is historical precedence to show that where a market need is expressed – a market will evolve. As to PGE's multiple concerns: 1) anytime a standard is implemented resulting in a cost shift, some will pay more, some will pay less and some will be neutral, 2) interruptible imports is an ambiguous term; however interruptible transactions are already addressed in R3 and R4, and 3) like Tacoma, where a market expresses a need there is historical evidence suggesting that a market will meet those needs.

Organization	Yes or No	question 4 Comment
Bonneville Power Administration	No	
Salt River Project	No	
PacifiCorp	No	While PacifiCorp does not believe the proposed standard would pose a serious and subsantial burden on existing competitive markets, we do believe that it may lead to the creation of a new market product.
Response: The Drafting Team concurs and appreciates your observation.		
NorthWestern Corporation	No	
Xcel Energy		
Tacoma Power	Yes	As Tacoma Power has stated above, this proposed new WECC standard shifts the contingency reserve obligation between the entities in WECC. Due to this shift, new or different relationships will have to be created. Cost causation principles will create

Organization	Yes or No	question 4 Comment
		new issues for the entities such that the entities that are responsible for providing the new contingency reserve obligations are truly held responsible. New contracts will have to be executed between these new entities and the balancing authorities, and there is no guarantee of agreement.
Response: The Drafting Team appreciates Tacoma's concern and notes that there is no single agreement on the market issue. A simple study cannot be performed that will conclude, without fail, that a market for the required services will be available. However, it is the nature of a bilateral market that when a product is needed, the market for that product often self-initiates. On point, PacifiCorp (see above) suggests in counter-point to Tacoma that the proposed standard may result in the creation of a new market and new market products. As such, waiting for a fully mature market to develop before the need is established may not be the best way to facilitate that market nor can it be the single catalyst to approving this standard since it is unlikely that a market will be created "just in case" this standard is approved. The Drafting Team concurs that as responsibilities shift, new agreements will have to be executed. To meet this need, and in response to an earlier comment from WECC members, the Drafting Team is requesting an extended Effective Date, in part, to allow for these new relationships to mature.		
Alberta Electric System Operator	No	
Powerex	No	
California ISO	No	Though the proposed standard may not pose a "serious and substantial" burden on competetive markets, the ISO feels that (1) the proposed recovery period is more burdensome than necessary and (2) more clarity should be provided as to allowed technology to meet operating reserve requirements as follows: 1. The ISO believes the last sentence in Measurements M1.1, M2 and M3 should be modified to indicate that the 60-minute recovery period begins when the DCS event is over, at the end of the allowed 15-minute recovery period. This would be consistent with what is allowed by the NERC BAL-002-0 Standards which specifically states that "The Contingency Reserve Restoration Period begins at the end of the Disturbance

Organization	Yes or No	question 4 Comment
		Recovery Period." The current wording "within 60 minutes of the event" is too vague and has been interpreted by the drafting team to mean "from the start of the event." This interpretation would mean that WECC entities have only 45 minutes after the recovery period to restore reserves which is only half of the 90 minutes Eastern entities would have. This seems overly burdensome and will continue to be an ever greater challenge as we increase the levels of intermittent renewables going forward.2. The proposed Requirement R2 in BAL-002-WECC-1 requires that at least half of the Contingency Reserve obligation be "Operating Reserve - Spinning", which is in the NERC Glossary of Terms. The problem is that the NERC definition of "Operating Reserve - Spinning" focuses on generation and demand response, which raises doubt as to whether a battery or other form of energy storage could be used. In keeping with the spirit that FERC has made clear that Reliability Standards should not dictate the type of technology used to meet a reserve requirement NERC should consider revising the definition of "Operating Reserve - Spinning" to ensure this is understood.

Response:

Issue #1: The proposed recovery period is more burdensome than necessary.

The Drafting Team appreciates your concern. Although a longer recovery period was suggested early on, FERC stated that unless the Drafting Team could produce substantial technical justification for the position, FERC would not agree to that inclusion. To date, the Drafting Team has not compiled what it believes to be sufficient technical justification to request a longer recovery period. Thus, it was not included in the proposed standard.

That said, the Drafting Team would point the CAISO to Bonneville Power Authority's (BPA) comment in WECC Posting 5 of this standard wherein BPA states that "BPA will submit a SAR for the same standard to extend the time period for reserve restoration consistent with the NERC standard, 15 minutes DCS recovery plus 90 minutes for reserve restoration for a total of 105 minutes after the contingency." Further, PPL in that same comment window suggested they would support that effort.

Organization	Yes or No	question 4 Comment
Although the Drafting Team is unable to address your concerns due to the instant lack of data, the Drafting Team believes the CAISO should join with BPA and PPL to pursue the matter in the standards development process. Issue #2: Adjust the Measures The Drafting Team would refer the CAISO to the below paragraph of FERC Order 740. "On remand, we direct WECC to develop a modification to the reserve restoration period or provide evidence demonstrating that extending the reserve restoration period to 90 minutes and adding a disturbance recovery period of 15 minutes would not increase the risk of a major disturbance in the Western Interconnection." FERC Order 740. P. 28. The above language indicates that the current application refers to 60 minutes from the time of the event – not 60 minutes following the recovery period. After repeated requests to the field, the Drafting Team has not yet been provided sufficient data to justify making the requested change. Although the Drafting Team does not opt to adopt your proposed language, the Drafting Team has made changes to Version 5 in an effort to clarify the matter. First, taking note that the language was contained within the measures and not the requirements, the Drafting Team was concerned that the measure added additional features not contemplated in the requirement. As such, the language was removed from the measure and moved to the requirement. This change was also made as a result of the NERC Quality Review of the proposed document. In Version 5, the affected language now reads as follows: "Except within the first sixty minutes following an event requiring the activation of Contingency Reserves…." That same sixty-minute period is now accurately reflected in both the requirement and the measure.		

Organization	Yes or No	question 4 Comment
Issue #3: Can a battery be used? The Drafting Team does not agree with the CAISO and believes technologies, such as batteries, both contemplated and not yet contemplated are included in the standard as potential resources – so long as the undefined resource can meet the response characteristics described in the standard. The language does not preclude any specific technology; rather, the language delineates how that technology must be respond. As to the use of the NERC term Operating Reserve – Spinning, the Drafting Team disagrees that the NERC term focuses on generation in that the term specifically includes "generation synchronized to the system" and "load fully removable from the system"; thus, load and generation. To meet the CAISO's concerns; R1, Part 1.2 states that Contingency Reserve can be comprised of "A resource, other than generation or load, that can provide energy or reduce energy consumption." This wide berth should accommodate new technologies both now conceived and conceievable in the future.		
Portland General Electric Company	Yes	PGE is concerned with the movement toward unnecessary changes to an approved reliability standard as proposed in BAL-002-WECC-1 that will not result in increased reliability. The changes made through BAL-002-WECC-1 go beyond the language clarity and consistency required by FERC in the 2007 Order (RR07-11) and seem to be driven more by the economic interests to shift contingency reserve responsibility (i.e. costs) from the generators to the loads rather than improving reliability. Changes to reliability standards should be driven by technical merit weighed against overall costs. The standards process should not be used as a lever to shift costs among members. o The current "Tier One" BAL-STD-002-0 reflects the longstanding WECC Minimum Operating Reliability Criteria (MORC) by breaking down required operating reserve into four components: regulating reserve, contingency reserve, reserve for on-demand obligations, and reserves for interruptible imports. However, the proposed BAL-002-WECC-1 narrows the scope to only contingency reserve, which raises the question of what happens to the other components. In the time since the

Organization	Yes or No	question 4 Comment
		initial comment period on BAL-002-WECC-1, WECC has retired the WECC MORC with some parts preserved as new “criteria”. However, the reserve requirements for interruptible schedules and on-demand rights/obligations were not preserved. The passage of the proposed BAL-002-WECC-1 and the retirement of the WECC MORC would remove any explicit reserve requirements for interruptible schedules and on-demand rights/obligations. The effect of this can only be a step down in the reliability of the interconnected system. o The clarification of "load responsibility" and e-tag 1.8 helped characterize the nature of the transactions. For the "sink" BA, it identified those imports that were "firm for the hour". The simplified calculation of contingency reserve in BAL-002-WECC-1 does NOT consider the responsibility of the BA to anticipate which imports might be interrupted in-hour, and therefore the quantity of additional reserves that need to be available. Under BAL-002-WECC-1 everyone will be forced to parse the energy codes to infer what energy is "firm for the hour". BAL-002-WECCC-1 should require continued use of the "load responsibility" feature in e-tag 1.8 to clearly identify those transactions that are not "firm for the hour". o Despite industry-voiced concerns over the difficulty of interpreting "load responsibility", BAL-002-WECC-1 is saddled with the term "interruptible load". Such poorly defined terms put the BA in a position to judge whether or not loads offered up by an LSE meet the contract requirements of being "interruptible". o BAL-002-WECC-1 is assuming a robust reserves market in the West. The West does not have a mature reserves market. This new standard will put additional burden on the load serving entities by forcing them to procure reserves, if available, from third parties in order to meet the new standard. PGE is concerned this requirement will increase demand for capacity across constrained transmission without any beneficial increase in reliability. o PGE is concerned that the proposed standard puts the responsibility to provide reserves in part on the Sink Balancing Authorities (BAs)/Load Serving Entities (LSEs), which are subject to an immature bilateral market for acquisition of said reserves. If Sink BAs / LSEs are not able to acquire the proposed reserve level, they could be forced to shed load to remain compliant with the proposed standard. There is a fundamental difference between

Organization	Yes or No	question 4 Comment
		the acquisition of reserves in an organized market compared to a bilateral market such as that prominent in the WECC region. In a bilaterally based market, because generators are not subject to must-run requirements and are not required to offer their generation into the market, Sink BAs /LSEs do not have assured access to spinning and non-spinning capacity. Therefore, reserve requirements are currently maintained by the generators in the majority of the WECC region. Generators are the only entities that have the assured ability, without shedding load, to respond to contingency events. The transfer of reserve obligation from generators to load is an unnecessary cost shift from the parties physically able to perform, to parties that must contract. Moreover, even if a contracting party is able to secure reserves, there would be no assurance that they could secure transmission on a system encumbered due to the requirements of the proposed standard. Simply put, the proposed BAL-002-WECC-01 shifts costs with no associated increase in reliability, and would potentially reduce reliability and increase transmission constraints in the WECC region.

Response:

Issue #1: Use of Process for Cost Shifting

The Drafting Team notes your concern that when changes are made to the reliability aspects of the grid via implementation of reliability standards, these changes do not come without cost. Further, the Drafting Team acknowledges that as standards are implemented, cost shifting often occurs giving way to the argument that the sole intent of the changes is financially motivated. Finally, the Drafting Team acknowledges that these facts are no mystery to the industry and the processes for development of standards hold the potential to be used for financial as opposed to reliability-related purposes.

The Drafting Team did consider the potential of cost shifting in a number of forums, largely in the early years of developing this standard. This Drafting Team and its predecessors concluded that an even split of the burden between generation and load was a reasonable approach, albeit, not the only possible approach.

Based on the evaluation of different alternatives to determine the allocation methodology, the Drafting Team determined that this methodology had the least negative effect on the greatest number of entities. The Drafting Team acknowledges

Organization	Yes or No	question 4 Comment
		that anytime there is a cost shift, some will incur greater costs, some will lower their costs, and some will remain revenue neutral. Support or opposition for the shift generally depends on which side of the equation one falls. For example, please see NV Energy's comment above stating their own entity's position on what constitutes a just split of costs. As to this specific standard, the Drafting Team does not claim to know all the differences between those entities dissuaded by the standard because it may harm their own profit and loss statements versus those in support of the standard because its higher criteria bolsters reliability. Rather, the Drafting Team has endeavored to meet both the mandates of Order 740 as well as the mandate to be responsive imposed by the Process for developing and Approving WECC Standards (Process). The Drafting Team is reluctant to meet one obligation without also meeting the other. Issue #2: The Standard's scope regarding "MORC" is Too Narrow The Drafting Team disagrees with your conclusion. R3 directly addresses the concept of interruptible schedules and R4 addresses the concept of on-demand energy. (Note: "Interruptible imports" remains an undefined term not uniformly used across the Western Interconnection.) Issue #3: Addressing Interruptible Imports / Using the "Load Responsibility" concept The standard is not designed to address how a Balancing Authority addresses market transactions (i.e., parsing of the energy codes). The standard as drafted does not preclude the continued use of the e-Tag system in any of its iterations. By contrast, the standard is designed to address Contingency Reserve obligations and Contingency Reserve transactions. Further, the standard requires that the seller of Contingency Reserves hold reserves to meet that obligation. The standard is designed to ensure that a Balancing Authority carries reserves sufficient to respond to any loss of resource to include loss of its own generation or loss of an import. Of note, the remand order did not take issue with the associated language as drafted. As to the use of the undefined term "interruptible load," the Drafting Team recognized that within WECC the colloquial use of the phrase is not always implemented in a standardized fashion. To address this concern the Drafting Team opted to use the defined term "Interruptible Load" contained in the NERC Glossary to avoid any misunderstanding. Issue #4: An immature Market may Preclude Compliance The immature market issue was already addressed above; please refer there.

Organization	Yes or No	question 4 Comment
The Drafting Team recognizes PGE's market concerns as well as the likelihood that costs and burdens may shift to meet the "3 and 3" proposal; some entities may experience a cost increase whereas some may experience a cost decrease. The choice of "3 and 3" was made in an effort to arrive at an equitable calculation of Contingency Reserve.		

5. Does the proposed regional reliability standard meet at least one of the following criteria?

- **The proposed standard has more specific criteria for the same requirements covered in a continent-wide standard**
- **The proposed standard has requirements that are not included in the corresponding continent-wide reliability standard**
- **The proposed regional difference is necessitated by a physical difference in the bulk power system.**

Summary Consideration: All respondents concurred that the proposed standard meets at least one of the NERC reliability criteria.

Organization	Yes or No	Question 4 Comment
Bonneville Power Administration	Yes	
Salt River Project	Yes	
PacifiCorp	Yes	

Organization	Yes or No	Question 4 Comment
NorthWestern Corporation	Yes	
Xcel Energy	Yes	
Tacoma Power	Yes	Tacoma Power believes that at least one of the criteria is met. However, that does not mean it is the right thing to do. We believe that this proposed new WECC standard has a significant shift in the contingency reserve obligation without any demonstrated benefits and no increased reliability. We urge you to not approve the proposed new WECC standard.Thank you for consideration of our comments.
Response: The Drafting Team appreciates your comment. The "3 and 3" spread will result in roughly the same amount of Contingency Reserves being carried as under the existing standard. By contrast to the existing standard, the proposed standard provides clarity as to the BAs' reserve requirement, and removes market transactions from the determination of the reserve requirement.		
Alberta Electric System Operator	Yes	
Powerex	Yes	
California ISO	Yes	
Portland General Electric Company	Yes	a. While the proposed standard has more specificity than the continent-wide standard, the proposed standard's increased specificity has not been proven to provide additional reliability or clarity than the existing regional reliability standard. b. The proposed standard does not include requirements that are not included in the corresponding continent-wide reliability standard that are not already contained within the existing regional reliability standard. c. The proposed standard does not consider the differences between the bulk of WECC's operational model (i.e., a bilateral path based model), and a centrally

Organization	Yes or No	Question 4 Comment
		managed flow based model. Ignoring the differences between the two models and implementing the proposed standard would impose cost shifting with the potential for a reduced level of reliability. The reduced liability would be due to reserve requirements being placed on entities that have no assured ability to respond to contingency events without shedding load.

Response:

Issue #1: The standard does not provide additional reliability

The Drafting Team appreciates your comment. The "3 and 3" spread will result in roughly the same amount of Contingency Reserves being carried as under the existing standard. By contrast to the existing standard, the proposed standard provides clarity as to the BAs' reserve requirement. The proposed standard calculates the reserve requirement independent of market transactions, and electrically places the reserves closer to the load to be served.

The proposed standard closes a gap contained in the existing standard in that, under the existing standard, there is not a requirement for renewable generation to be included in the calculation of the Contingency Reserve requirement. The existing standard requires Contingency Reserve based only on hydro and thermal generation; it does not include renewable. There is such a requirement in the proposed standard. The proposed standard, which requires inclusion of all types of generation in the calculation of the Contingency Reserve amount, enhances reliability over the existing standard. With the large amount of existing and proposed wind, PV, and other renewable, this is a substantial improvement in reliability.

Issue #2: There are no new requirements compared to the existing standard.

Please see comment above.

Issue #3: Immature bilateral contract market

Please see the Drafting Team's responses above regarding immature markets and shifting of costs.

6. Additional Comments Submitted

Summary Consideration:

The team thanks all respondents for their time and considered responses. For those seeking change to the standard beyond those contemplated in the current request, the team encourages full use of the standards development process.

The distribution of the "3 and 3" between load and generation is designed to equitably spread the reserve burden. Within the industry there is ample example that where a market need is expressed, a market will develop to meet that need.

Wherever appropriate, the team opted to use NERC defined terms, such as Interruptible Load as opposed to the undefined term "interruptible" often used within WECC but not uniformly implemented.

Organization	Yes or No	Additional Comments
Bonneville Power Administration	Yes	BPA is supportive of this standard. However, BPA does have the following comment with the standard, with the understanding that this is not going to be a change to the standard as submitted: BPA will submit a SAR for the same standard to extend the time period for reserve restoration consistent with the NERC standard, 15 minute DCS recovery plus 90 minutes for reserve restoration for a total of 105 minutes after the contingency. BPA does understand that this issue is not currently a part of the proposed changes due to insufficient documentation being submitted to FERC during the first iteration of this standard. Since this time, a large amount of documentation that justifies expanding the recovery period has been submitted to the drafting team. This documentation detailed why thermal issues with the transmission system are not an issue in WECC plus showed that there is almost nonexistent increase in risk to WECC with expanding the recovery period. Although BPA understands that it is not desired by WECC members to confront this issue with this iteration of the standard, BPA strongly

Organization	Yes or No	Additional Comments
		recommends that, if this standard is approved by FERC, WECC immediately reconvene the drafting team in order to correct this issue.
Response: The Drafting Team appreciates your support as well as your initiative and further notes the reiteration of your position as made in BAL-002-WECC-1, Posting 2 and again in Posting 5. The Drafting Team encourages full use of the standards development process and thanks BPA for acknowledging the confines under which the Drafting Team has labored.		
NorthWestern Corporation	No	NorthWestern Energy disagrees with the amount of Contingency Reserve equal to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation as specified in Requirement 1 of BAL-002-WECC-1. This amount of Contingency Reserve strays away from the current requirement of the sum of five percent of the load responsibility served by hydro and wind generation and seven percent of the load responsibility served by thermal generation. The sum of five and seven percent Contingency Reserve responsibility is a tried practice that has proven to allocate adequate Contingency Reserve to responsible entities in the Western interconnection. In addition, NorthWestern Energy recommends that Contingency Reserves and Operating Reserves be defined in the proposed BAL-004-WECC-1 standard. The use of these terms in the standard does not seem to be consistent with industry standards and it leads to confusion when the two terms and referenced and interchanged throughout the document.
Response: Issue #1: The amount strays from 5 hydro/wind and 7 thermal The “3 and 3” has already been approved by the WECC Operating Committee, and when reviewed by FERC in the Order 740 Remand Order, FERC did not challenge the allocation. The Drafting Team notes that the existing standard does not specifically require reserves to be carried for “wind.” By contrast, the proposed standard would require that reserves be carried for ‘all” generation. This would also include wind, PV, and “all” renewable generation. When studied by the Drafting Team, the 3 and 3 allocation resulted in an amount of Contingency Reserve essentially the		

Organization	Yes or No	Additional Comments
same as the “tried and true” 5 and 7. Issue #2: Contingency Reserves and Operating Reserves should be defined in BAL-004-WECC-1 – not here. The Drafting Team notes that it has no control over the BAL-004-WECC-1 standards development process. (Could this have been a typo?) The Drafting Team notes that the terms Operating Reserve – Spinning and Operating Reserve – Supplemental are currently NERC-defined terms, used in this standard, the definitions for which have been taken directly from the NERC Glossary without change. To avoid confusion as to the definitions, WECC will respond to FERC Order 740, at Paragraph 62, and request that the WECC Operating Committee retire the term “Spinning Reserve” from the WECC Glossary.		
Powerex		Powerex has indicated in its previous comments that WECC should continue the operating reserves requirements for interruptible imports, as specified in the current standard (BAL-STD-002-0 - Operating Reserves): WR1.a Minimum Operating Reserve. Each Balancing Authority shall maintain minimumOperating Reserve which is the sum of the following:...(iii) Additional reserve for interruptible imports. An amount of reserve, which canbe made effective within ten minutes, equal to interruptible imports. It is the opinion of Powerex that the above requirement should remain in place until such time that the issue of reserve requirements associated with interruptible imports is addressed in some way, either through another standard development process or a regional criteria that specifically identifies the operating reserves required for interruptible imports. Though the term “interruptible imports” has never been clearly defined by WECC or NERC, the language was placed in the standard to differentiate an interruptible energy product - a product that may be curtailed for ANY reason, including the lack of sufficient operating reserves to hold the schedule whole for the scheduling period, from a “Firm” energy product - a product served by sufficient generating resources that the energy would not be curtailed during the scheduling period, unless those resources were depleted as a result of an event that qualified as that for which Contingency Reserve could be deployed. Removing the requirement from the current

Organization	Yes or No	Additional Comments
		standard could lead to further confusion over the requirement for reserves associated with interruptible imports. Right now in WECC there exists an unacceptable lack of clarity with respect to regulation requirements associated with energy interchange scheduling, and arguably there is no clear, standardized means of communicating the type of energy product (i.e. Firm, interruptible, or Unit Contingent) associated with an exchange. Powerex acknowledges that the Operating Reserve (i.e. Contingency Reserve) standard alone cannot address these concerns, but we feel it is premature to eliminate the language until the concerns are addressed via some other regulatory requirement.

Response:

Removing the requirement to address interruptible power could lead to further confusion. It may be premature to eliminate the language until the concerns are addressed via some other regulatory requirement.

The Drafting Team notes that the Powerex hypothesis as to the intent of the language may not be accurate because the language was included in WECC's MORC document long before energy markets were deregulated.

As to the development of markets, the "5 and 7" Contingency Reserve concept was developed decades ago. In response, markets developed to match the need. It is anticipated that as the "3 and 3" is implemented, the market will respond accordingly.

As to clarity of "regulation" requirements, this standard does not address the Regulating Reserve portion of Operating Reserves. This issue is addressed under NERC's BAL-001 standard.

The proposed standard is not designed to address how a Balancing Authority addresses market transactions (i.e., parsing of the energy codes). The proposed standard does not preclude the continued use of the e-Tag system in any of its iterations.

By contrast, the proposed standard is designed to address Contingency Reserve obligations and Contingency Reserve transactions. Further, the proposed standard requires that the seller of Contingency Reserves hold reserves to meet that obligation. The standard is designed to ensure that a Balancing Authority carries reserves sufficient to respond to any loss of resource to include loss of its own generation or loss of an import. Of note, the remand order did not take issue with the

Organization	Yes or No	Additional Comments
associated language as drafted. As to the use of the undefined term “interruptible load,” the Drafting Team recognized that within WECC the colloquial use of the phrase is not always implemented in a standardized fashion. To address this concern the Drafting Team opted to use the defined term “Interruptible Load” contained in the NERC Glossary to avoid any misunderstanding. Finally, the Drafting Team believes the current methodology cited by Powerex does not add any clarity nor does it have universal agreement as to its implementation; rather, the existing language is the source of the ambiguity. The Drafting Team encourages Powerex to initiate a SAR to facilitate addressing Powerex’ concerns.		

END OF REPORT

Guidance Document
BAL-002-WECC-2
Contingency Reserve

Background

On March 26, 2007, NERC submitted WECC-BAL-STD-002-0 to FERC for approval. The purpose of the standard was to convert the substance of WECC's Reliability Criteria Agreement, III.A.2. WECC Criterion into an enforceable standard.

On June 8, 2007, FERC approved WECC-BAL-STD-002-0 — subject to specific requested changes — finding the standard was more stringent than the corresponding NERC Reliability Standard BAL-002-0. Specifically, FERC found that WECC's requirement to restore Contingency Reserve within 60 minutes was more stringent than the 90-minute restoration period as set forth in NERC's BAL-002-0.

After making the FERC mandated changes, on March 25, 2009, NERC submitted BAL-002-WECC-1 (nomenclature change) to FERC for approval and requested retirement of WECC BAL-STD-002-0. On October 21, 2010, FERC remanded BAL-002-WECC-1 to NERC under FERC Final Order 740 with instruction for WECC to further development the standard. This standard is the result of the aforementioned proceedings.

The following FAQs are offered as guidance to the practical application of the standard. The questions and answers are structured to follow the structure of the proposed standard.

Purpose Statement

1) Why was the Purpose statement changed from that of the original BAL-STD-002-0 and Version 1 of BAL-002-WECC-2?

The industry commented that it preferred the substance of the original Purpose statement over that of Version 2 rejected on May 19, 2011 by the WECC Operating Committee. Specifically, commenters were concerned that the reference to frequency response was removed as was any mention of a policy statement indicating the circumstances under which reserves should be used.

Developed as WECC-0083

At the threshold, it should be understood that the Purpose statement is not an enforceable portion of the standard. Further, the writing style illustrated in the current BAL-002-0 (similar to that of BAL-STD-002-0 and BAL-002-WECC-2, Version 1) is one of many Purpose statements used in NERC training as an example of "How not to Write a Purpose Statement."

Specifically, the Purpose statement needs to be a concise statement of the reliability attribute achieved by the document. The standard as drafted only specifies the quantity and types of Contingency Reserve required for the reliable operation of the interconnected power system. The standard is neither a frequency response standard nor is it a Disturbance Control Performance standard. The standard does not opine on whether or not to use reserves to replace generating capacity and energy lost due to forced outages of generation or transmission equipment. As such, these additional statements included in the earlier Purpose statements have been accurately dropped from the current version.

As presented in Version 5, the Purpose statement reflects reliability principle number one as contained in NERC's Reliability Principles document found at the following hyperlink. An excerpt from that document is as follows: http://www.nerc.com/files/Reliability_Principles.pdf

> "**Reliability Principles**
>
> NERC Reliability Standards are based on certain reliability principles that define the foundation of reliability for North American bulk power systems. Each reliability standard shall enable or support one or more of the reliability principles, thereby ensuring that each standard serves a purpose in support of reliability of the North American bulk power systems. Each reliability standard shall also be consistent with all of the reliability principles, thereby ensuring that no standard undermines reliability through an unintended consequence.
>
> 1. Interconnected bulk power systems shall be planned and operated in a coordinated manner to perform reliably under normal and abnormal conditions as defined in the NERC Standards."

Applicability

2) For purposes of this standard, what entity determines the amount of generation for which reserves must be carried?

Developed as WECC-0083

Each Balancing Authority that is not a member of a Reserve Sharing Group and each Reserve Sharing Group. This means those two entities ultimately decide *what constitutes generation* for purposes of their calculation.

The applicability has been clarified in Version 5 to read as follows:

4. Applicability:

4.1 Balancing Authority

4.1.1. The Balancing Authority is the responsible entity unless the Balancing Authority is a member of a Reserve Sharing Group, in which case, the Reserve Sharing Group becomes the responsible entity.

4.2 Reserve Sharing Group

4.2.1. The Reserve Sharing Group when comprised of a Source Balancing Authority becomes the source Reserve Sharing Group.

4.2.2. The Reserve Sharing Group when comprised of a Sink Balancing Authority becomes the sink Reserve Sharing Group.

3) Some have suggested that where the Balancing Authority or Reserve Sharing Group have only limited ownership or operational control over significant shares of generating resources within its footprint, this may result in the Balancing Authority or Reserve Sharing Group carrying a disproportionate share of reserves of the Interconnection. Why doesn't the standard apply to the generator owners and generator operators within the Balancing Authority as opposed to each Balancing Authority that is not a member of a Reserve Sharing Group and each Reserve Sharing Group?

As for assigning tasks to the Generator Owner and/or the Generator Operator, the standard does not assign tasks to either entity as the required tasks are more closely aligned with those ascribed to the Balancing Authority / Reserve Sharing Group as assigned in the NERC Functional Model, Version 5.

As for the potential increased burden on Balancing Authorities and/or Reserve Sharing Groups to carry a disproportionate share of reserves, the standard allows for impacted Balancing Authorities and/or Reserve Sharing Groups to transfer generation out of their area thereby more equitably allocating generation for purposes of the reserve calculation.

Effective Date

4) Comments from the field requested a change to the Effective Date. Was the date changed?

Yes. The drafting team has accepted the request to extend the Effective Date. The current proposal is "The first day of the third quarter after receipt of applicable regulatory approval." This extended Effective Date recognizes that the proposed standard may require negotiation and execution of contracts as well as potential retooling of software.

Requirements and Measures

5) R1 establishes, among other things, the amount of reserves that must be carried. That amount is predicated on 3% of generation and 3% of load. Please explain how this standard meets the requirements for minimum reserves and is technically justified.

The drafting team is cognizant that there is no technical justification for setting a reserve amount at either the existing 5% Hydro and 7% Thermal of BAL-STD-002-0 or the 3% generation and 3% load proposed in BAL-002-WECC-2. With that said, the drafting team believes that the proposed methodology of BAL-002-WECC-2 provides for a reliable amount of reserves approximating the existing methodology while removing references to market products.

As for the amount of reserves, the team utilized a number of technical evaluations comparing the existing methodology with the proposed methodology in order to ensure that the new requirement was not less reliable. The results of the evaluations showed that the amount of reserves required by either the old method of BAL-STD-002-0 or the new method proposed in BAL-002-WECC-2 was relatively the same. Being relatively the same, the BAL-002-WECC-2 methodology is projected to have no adverse affect on reliability.

Additionally, the drafting team points out that FERC determined in the Final Order in Docket RM09-15, that:

> "WECC's proposed calculation of minimum contingency reserves is more stringent than the national requirement and could be part of a future proposal that the Commission could find to be just, reasonable, not unduly discriminatory or preferential, and in the public interest." (P39).

As for removing references to market products, the reason for removing market products is that the reliability side of an organization is not involved in the transaction negotiations and does not always have access to the details related to the different market products. This issue was identified as early as four years ago and continues to be argued at WECC today. Until consensus on the issue is reached, it is not advisable to imbue ambiguous concepts into a mandatory standard.

6) A number of comments expressed concerns that the standard as proposed would shift costs to load-based entities by increasing the amount of reserves required by those entities. How has the team addressed the issue?

FERC has already ruled that a calculation of minimum contingency reserves based on three percent of generation and three percent of load would fairly balance both the reserve obligation as well as the financial obligations of those who would benefit most from those services. FERC Order 740, P47.

7) Does this standard affect how a Balancing Authority calculates its most sever single contingency (MSSC)?

No. This standard does not impact how a Balancing Authority calculates its MSSC.

8) Is there ever a time when a Balancing Authority would have to carry even more reserves than the greater of two amounts stated in Question 2?

Yes, under specific circumstances.

In addition to the minimum amount of Contingency Reserve required in Requirement R1, each Source or Sink Balancing Authority may have to carry additional reserves under specific conditions. Specifically, these are reserve

transactions and recallable energy transactions. These transactions are readily identified by WECC product codes for reserve transactions: 1) C-SP (spinning reserve transactions), 2) C-NS (non-spinning reserve transactions), and 3) C-RE (recallable energy transactions).

For example:

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 Balancing Authority. 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 Reserve under the proposed standard.

If the Sink Balancing Authority is designating an Interchange Transaction(s) as part of its Contingency Reserve, either Spinning or Non-Spinning, the Source Balancing Authority shall increase its Contingency Reserve 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.

9) Could you please provide a practical illustration showing how the additional reserve amount is calculated?

Example 1 – Recallable Energy

BA1 – Source BA on e-Tag
BA2 – Sink BA on e-Tag

BA1 designates the sale of energy as being provided from its reserve. The e-Tag will show the product code of C-RE on the tag. BA2 is required to carry additional reserve equal to 100 percent of this transaction.

Example 2 – Operating Reserve - Spinning

BA1 – Source BA on e-Tag
BA2 – Sink BA on e-Tag

BA2 purchases from BA1 Operating Reserves – Spinning. An e-Tag is created showing a flow of zero energy with a transmission profile equal to the maximum capacity of the transaction with a product code type of C-SP. BA1 is required to increase its minimum reserve amount for Operating Reserve – Spinning by the amount of the transaction.

Example 3 – Operating Reserve - Supplemental

BA1 – Source BA on e-Tag
BA2 – Sink BA on e-Tag

BA2 purchases from BA1 Operating Reserves – Supplemental. An e-Tag is created showing a flow of zero energy with a transmission profile equal to the maximum capacity of the transaction with a product code type of C-NS. BA1 is required to increase its minimum reserve amount for Operating Reserve – Supplemental by the amount of the transaction.

10) Why does the current version use different defined terms than Version 2?

The drafting team modified the standard to address the FERC Order 740 mandate requiring the definitions be changed to place load and generation on equal footing for purposes of providing reserves. Specifically, the Order stated:

> "On remand, the Commission [directed WECC to modify BAL-002-WECC-1 to] *explicitly* provide that demand-side management technically capable of providing [contingency reserve] may be used as a resource for both spinning and non-spinning contingency reserves" and to "ensure *comparable treatment* of demand-side management with *conventional generation*." FERC Order 740, P. 61; see also FERC Order 693.

To meet these two mandates, the current version explicitly provides that Demand-Side management can be used as a resource for Contingency Reserve. To ensure comparable treatment of Demand-Side management with conventional generation, WECC has removed all reference to the more restrictive terms *Spinning Reserve* (containing reference only to generation) and *Non-Spinning Reserves* (exclusive to generation and Interruptible Load) and substituted the correct terms *Operating Reserve – Spinning* and *Operating Reserve-Supplemental* at FERC's request.

Further, "In its order approving WECC's current regional Reliability Standard, the Commission determined that regional definitions should conform to the

definitions set forth in the NERC Glossary, unless a specific deviation has been justified. WECC has not justified the need for a separate, regional definition of Spinning Reserve. *Accordingly, we direct WECC to remove this regional definition from the NERC Glossary,*" [emphasis added] FERC Order 740, P. 62.

11) In addition to the above definitional changes, the current version further qualifies some of the defined terms. Can you explain?

When the drafting team incorporated the FERC mandated terms, it determined that the definition for Contingency Reserve – Spinning did not require that it be automatically responsive to frequency. To fill that void, the drafting team included in the current version the historical WECC requirement that spinning reserve must be automatically responsive proportionally to frequency deviations. Parenthetically, this approach should also assuage some concerns that the frequency component of the earlier Purpose statements is no longer offered.

12) Why has the team decided not to pursue the 105 minute restoration period?

In the Order 740 Remand, FERC said:

> "2. [FERC] remands the…Standard based on concerns that WECC has not provided adequate technical support to demonstrate that the requirements of [BAL-002-WECC-1] are sufficient to ensure the reliable operation of the [grid]. Specifically, WECC's data indicates that extending the reserve restoration period from 60 to 90 minutes presents an unreasonable risk that a second major contingency could occur before reserves are restored after an initial contingency. Without *further technical justification* demonstrating that this less stringent requirement will adequately support reliability in [WECC], [FERC] is unable to [approve the Standard]. Accordingly, we remand…BAL-002-WECC-1…[for] further modifications consistent with this final rule." FERC Final Order 740, P2.

To date, the drafting team has been unable to procure *further technical justification* in support of the 90-minute restoration period. After outreach to the industry covering multiple years, the drafting team does not currently project the ability to obtain the required evidence. As such, the drafting team has complied with FERC's order. Compliance with FERC's order does not preclude a

subsequent filing should the industry provide persuasive evidence in support of the 90-minute period.

13) Why doesn't the standard address Interruptible Exports?

The term "interruptible" is not a defined term in the NERC or WECC glossary of terms. The term is interpreted differently by different parties. Unless there is a common definition of the term "interruptible", the drafting team does not believe a standard utilizing the term is clear and unambiguous. Therefore, the drafting team has removed this terminology. Further, the team concluded that creating a new definition for interruptible was outside of the scope of the Remand.

While the standard does not use the term "interruptible", R3 does address one form of an interruptible transaction.

14) Please explain why the Energy Emergency Alert (EEA) 3 was used instead of the EEA2 in EOP-002-3.

FERC's Order in Docket RM09-15 specifically stated a Balancing Authority that "planned to shed firm load before the reliability coordinator issued a level 3 energy emergency alert" (P49, RM09-15 Final Order) would be in violation of EOP-002-3. The drafting team believes that under the EOP-002-3 Requirements, two things are clear: 1) the Balancing Authority can curtail firm load prior to asking for an EEA, and 2) if the Balancing Authority believes that curtailment of firm load is imminent, then it should request an EEA level 3.

The drafting team believes that it is our obligation to make it clear when it is appropriate for an entity to utilize firm load as its contingency reserve. As FERC pointed out in its order, a Balancing Authority using firm load as its reserve must believe that it will curtail that load if an event occurs. Since we know such events happen from time to time, as long as the load is used for reserve, it is likely that it will be curtailed and therefore FERC believes that the correct EEA level is EEA Level 3 – "Firm load interruption is imminent or in progress."

Some of the commenters state that EEA Level 2 is more appropriate. The drafting team believes this position is because under an EEA Level 2, reserves are utilized to serve loads and the entity is deficient of reserves. When one starts looking at the interaction between WECC's proposed BAL-002-WECC-1 and EOP-002-3, the issue is less clear. As an example, does the declaration of an EEA Level 2 relieve that entity of its obligation to carry a minimum amount of reserves under BAL-002-WECC-2? If not, then an entity can only be deficient

of reserves for at most 60 minutes under the BAL-002-WECC-2 standard, and only then if the entity had a contingency event which causes the declaration of the EEA Level 2. Otherwise, the entity has no excuse for being below the minimum level of reserves under BAL-002-WECC-2. If the entity can restore reserves by utilizing firm load as its reserve, without actually curtailing the load, FERC's order states that the entity should declare an EEA Level 3 since at that time, the entity is planning to curtail firm load if a contingency occurs and therefore curtailment of firm load is imminent.

15) FERC instructed WECC to "consider" QF Parties' concerns about the ambiguity of the term "Net Generation," Paragraphs 64 and 66. Further, FERC instructed WECC to consider the QFs issues in light of FERC Order 464. How did the team address the issue?

The term "Net Generation" has been removed from the current version.

After considering the QF's position in light of FERC Order 464, the team concluded that the QF's issues were preserved in Order 464 and need not be vetted again in the proposed standard. Where an existing FERC Order exists it is presumed that the industry will follow that order without reiteration in peripheral documents.

To accommodate the needs of the QFs, the drafting team included the following language in Requirement R1 as a reminder to Balancing Authorities and Reserve Sharing Groups that FERC has already adjudicated the QF's concerns.

"(excluding Qualifying Facilities (18 C.F.R. Section 292.101) as addressed in FERC Order 464)".